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PRESENTATION.

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ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS, AND PLACES OF GROWTH:

TO WHICH WILL BE ADDED,

OCCASIONAL REMARKS.

55379

BY

JAMES EDWARD SMITH, M.D. F.R.S.

MEMBER OF THE IMP. ACAD. NATURÆ CURIOSORUM, THE ACADEMIES OF STOCKHOLM, UPSAL, TURIN, LISBON, LUND, BERLIN, PHILADELPHIA, AND THE NAT. HIST. SOCIETIES OF PARIS AND MOSCOW;
PRESIDENT OF THE LINNÆAN SOCIETY.

THE FIGURES BY
JAMES SOWERBY, F.L.S.

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——" VIRESQUE ACQUIRIT EUNDO."—— *Virg.*

VOL. XXVIII.

7 X 61

LONDON:

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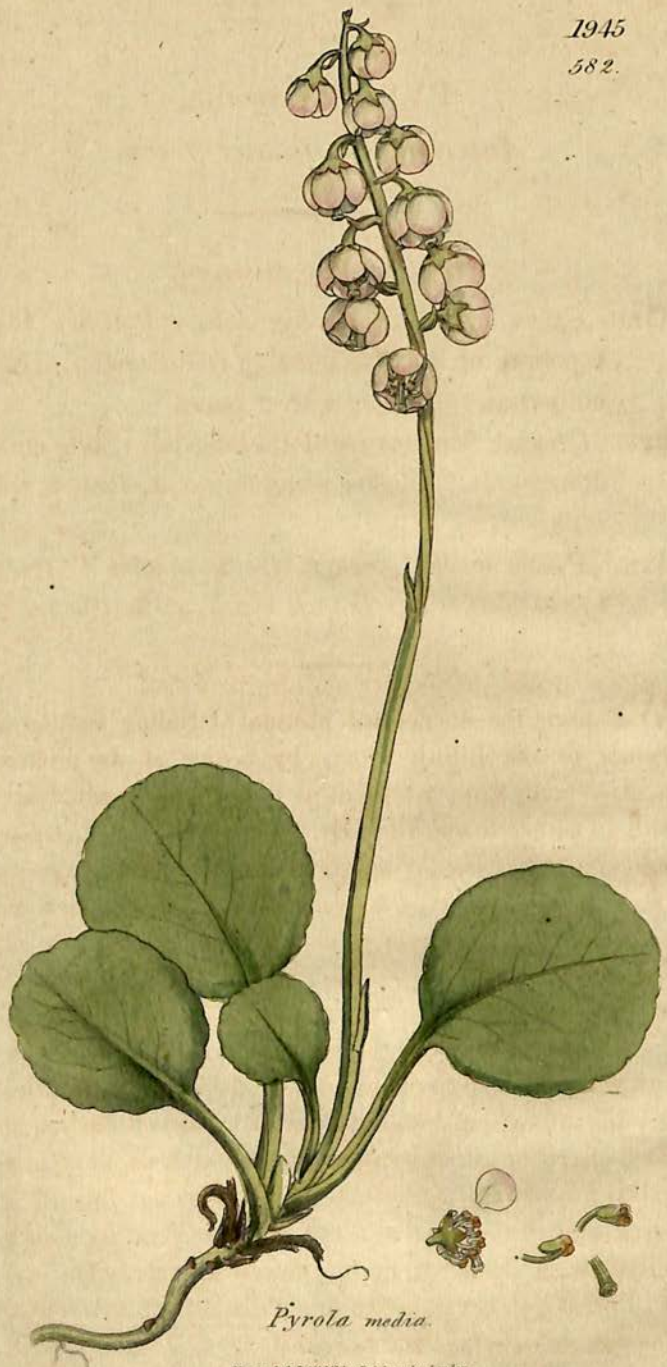


Pyrola media.

Nov. 1.1808. Published by Ja.s Sowerby, London.

PYROLA media.

Intermediate Winter-green.

DECANDRIA Monogynia.

GEN. CHAR. *Cal.* deeply five-cleft. *Pet.* 5. *Caps.* superior, of 5 cells, bursting at the angles. *Seeds* numerous. *Anthers* with 2 pores.

SPEC. CHAR. Stamens regularly inflexed. Style curved downwards. Cluster many-flowered, with a spiral stalk.

SYN. Pyrola media. *Swartz in Stockholm Trans. for* 1784. 263. *t.* 7. *Winch Guide, v.* 2. 19.

WE have the unexpected pleasure of adding another new *Pyrola* to the British Flora, by favour of its discoverer N. J. Winch, Esq., who sent us this specimen, which agrees with an authentic one from Dr. Swartz. It grows in shady places, and has been observed by Mr. Winch in Scots-wood Dean, 3 miles west of Newcastle; in East-common wood near Hexham, Northumberland; in some woods 4 miles north of Wolsingham, Durham; and at Studley, Yorkshire, flowering towards the end of June.

This species has been confounded with *P. minor*, *t.* 158, with which it nearly agrees in general habit, but differs in its very spirally twisted flower-stalk, and in the declination and much greater length of its style. The stamens are all regularly incurved round the germen as in *P. minor*, not directed upwards as in *P. rotundifolia*, *t.* 213, neither is the style so recurved as in the latter, nor the flowers so large. The leaves of all these species vary much in outline, as well as serratures. The roots are creeping and perennial.

1946

654.

Sedum sexangulare.

Nov. 1st 1814, Pub. by Jas. Sowerby, London.

SEDUM sexangulare.

Insipid Stonecrop.

DECANDRIA Pentagynia.

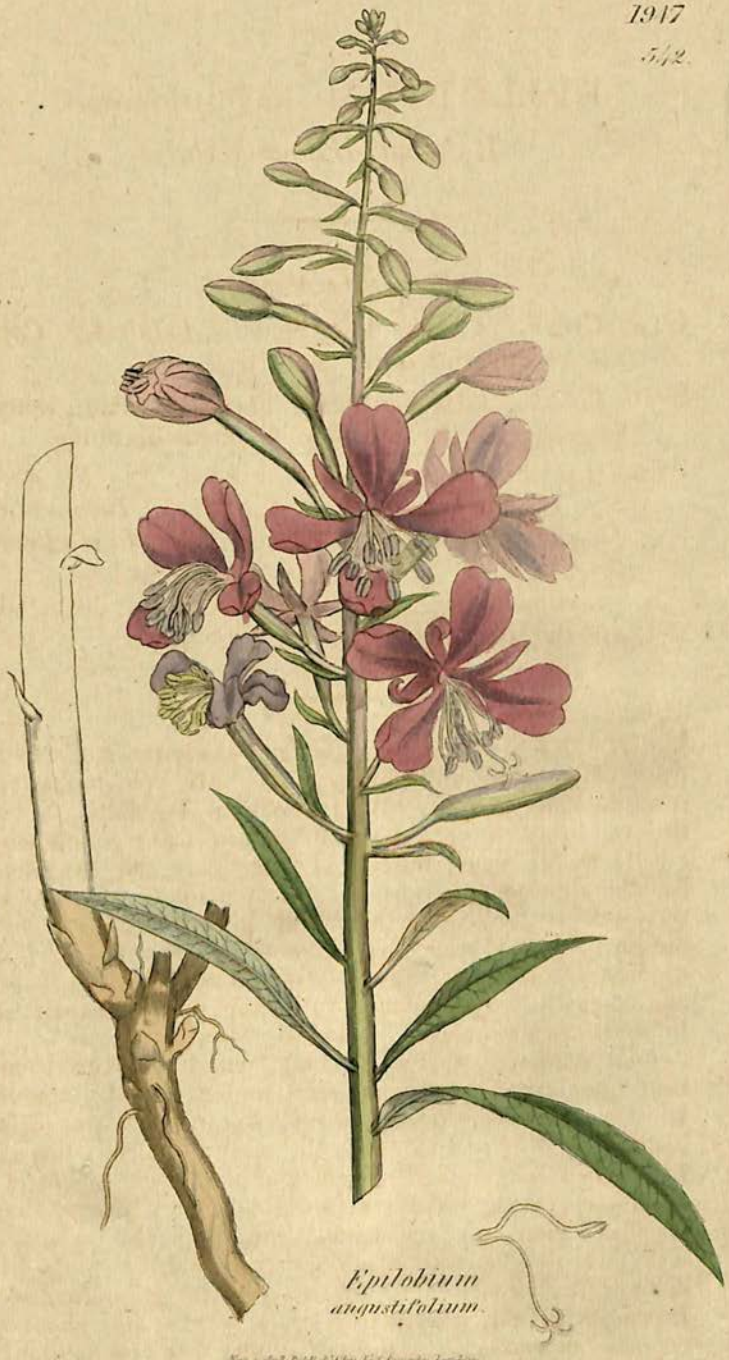
GEN. CHAR. *Cal. 5*-cleft. *Petals 5*, with *5* nectariferous scales at the base of the germen. *Capsules 5*, superior.

SPEC. CHAR. Leaves in six or seven rows, somewhat cylindrical, obtuse, fleshy, spreading, fixed to the stem by their inner side above the base. Cyme three-cleft, leafy.

SYN. Sedum sexangulare. *Linn. Sp. Pl.* 620. *Sm. Fl. Brit.* 488. *Huds. ed.* 1. 171. *With.* 428. *Hull.* 99. *Relh.* 174. *Curt. Lond. fasc.* 4. *t.* 33.
S. acre *β*. *Huds.* 196.

IT cannot but excite wonder that any systematic botanist should confound this with *Sedum acre*, *t.* 839. Mr. Curtis has given the first figure of the plant before us, (Lobel's *Ic.* 379. *f.* 1, being too unlike and uncertain to be relied on,) having gathered it on Greenwich park wall near the south-west corner. It was found in several parts of Kent by Mr. Hudson, and in Cambridgeshire by Mr. Relhan. Our specimen was brought by Mr. Turner from the famous rotten walls of Old Sarum, and blossomed in a garden about the end of July, being 2 or 3 weeks later than the *acre*.

It differs moreover in being, though unpleasantly austere, destitute of all acrid pungency of flavour, but especially in the form and disposition of its leaves, which are pretty accurately cylindrical, by no means ovate, and stand 3 or 4 together in alternate whorls, so as to spread 6 or 7 different ways, producing in the whole leafy stem or branch 6 or 7 angles or rows. The cymes are terminal, of 2 larger branches and a small one. Flowers yellow, much like those of *S. acre*, or rather paler. The foliage of the plant often turns red.



Epilobium
angustifolium.

EPILOBIUM angustifolium.

Rose-bay Willow-herb.

OCTANDRIA Monogynia.

GEN. CHAR. *Cal.* in 4 segments. *Petals* 4. *Capsule* oblong, inferior. *Seeds* feathered.

SPEC. CHAR. Leaves scattered, linear-lanceolate, veiny, smooth. Petals unequal. Stamens declining.

SYN. Epilobium angustifolium. *Linn. Sp. Pl.* 493. *Sm. Fl. Brit.* 409. *Huds.* 161. *With.* 366. *Hull.* 82. *Sibth.* 121. *Abbot.* 84. *Curt. Lond. fasc.* 2. *t.* 24. *Winch Guide, v.* 1. 36.

Lysimachia speciosa, quibusdam Onagra dicta, siliquosa. *Raii Syn.* 310.

CERTAINLY wild in meadows and shady moist places in many parts of the north of England. Mr. Winch observed it on the Cheviot hills; Mr. Harriman in Teesdale. Nevertheless, being a very common garden flower, increasing greatly by its roots, the plants found here and there about London are supposed to be outcasts of gardens. Our specimen was gathered on the hill a little beyond the Robin hood inn on the road to Kingston, where we have observed the plant near 20 years, in an apparently wild state, flowering in July and August, the stem being always simple. Mr. Curtis seems to have drawn a branched garden specimen.

Root somewhat fleshy, creeping, reddish. Stems from 3 to 6 feet high, erect, wand-like, roundish, leafy, smooth. Leaves numerous, nearly sessile, linear-lanceolate, acute, entire or slightly toothed, smooth, veiny; glaucous beneath. Flowers in long, upright, leafless clusters, very ornamental, inodorous; with reddish stalks and calyx; hoary, often purplish, germens; and large, crimson petals, unequal in size and irregular in position. Stamens and style bent downwards. Pollen blue. Stigma 4-cleft. It is often called Persian or French Willow in Norfolk, where, though almost universal in gardens, we have never met with any naturalized specimens.

Epilobium tetragonum.

Nov.1, 1803. Published by Ja.s Sowerby London.

EPILOBIUM tetragonum.

Square-stalked Willow-herb.

OCTANDRIA Monogynia.

GEN. CHAR. *Cal.* in 4 segments. *Petals* 4. *Capsule* oblong, inferior. *Seeds* feathered.

SPEC. CHAR. Leaves lanceolate, sessile, minutely toothed. Stem with four angles. Stigma undivided.

SYN. Epilobium tetragonum. *Linn. Sp. Pl.* 494. *Sm. Fl. Brit.* 412. *Huds.* 162. *With.* 368. *Hull.* 82. *Relh.* 151. *Sibth.* 122. *Abbot.* 85. *Curt. Lond. fasc.* 2. *t.* 23.

Lysimachia siliquosa glabra media sive minor. *Raii Syn.* 311.

COMMON in watery marshy places, flowering in July.

Root perennial, fibrous. Stem 12 or 18 inches high, erect, branched, leafy, nearly smooth, roundish in its transverse section, but marked with four angular ribs at unequal distances from each other, by which it is known from *E. palustre*, *t.* 346. Leaves generally, if not always, sessile, lanceolate, smooth, irregularly and minutely toothed, for the most part alternate. Flowers few, in leafy clusters, small, with pale purple cloven petals, and a club-shaped undivided stigma. The pods, flower-stalks, and in some degree the floral leaves, are slightly hoary.

The supposed variety with stalked and broader leaves, mentioned by Mr. Curtis, was what he afterwards justly allowed to be *E. roseum* of Schreber, see *t.* 695; and which we confess to have sometimes puzzled us in studying the present species. How far they are really distinct may still admit of doubt.

Nov. 1st 1818 Published by Jas Sowerby London.

ASPIDIUM cristatum.

Lesser Crested Shield-fern.

CRYPTOGAMIA Filices.

GEN. CHAR. *Fructifications* scattered, in roundish dots, not marginal. *Involucrum* umbilicated, bursting almost all round.

SPEC. CHAR. Frond nearly bipinnate; leaflets ovate, obtuse, with shallow lateral serratures and sharp little terminal teeth. Common stalk scaly. Involucrum nearly circular.

SYN. Aspidium cristatum. *Swartz. Fil.* 52.
Polypodium cristatum. *Linn. Sp. Pl.* 1551.
P. Callipteris. *Ehrh. Crypt.* 53.

GATHERED in hedge rows, on Apse heath and near Ryde, in the isle of Wight, by the Rev. G. R. Leathes. We have a specimen gathered in 1806 by the Rev. R. B. Francis near Holt, Norfolk, and have heard of others from Scotland, so that this species can no longer be refused a place in the *Flora Britannica*. Our specimens accord with original ones of Linnæus and Ehrhart, and are very distinct from *A. dilatatum*, *t.* 1461, long mistaken for the *P. cristatum* of Linnæus.

Root tuberous, somewhat creeping. Fronds 1 or 2 feet high, ovato-lanceolate, acute, pinnate; the leaves either again pinnate, or deeply pinnatifid; leaflets rather alternate, ovate, obtuse, veiny, with wide shallow serratures along their sides, and several broad, sharp, scarcely spinous, little teeth at their summits. The ribs are somewhat zigzag. Dots of capsules tawny, about the upper part of the frond, but on the lower part of each leaflet or segment. Involucrum between kidney-shaped and circular. The common stalk is very scaly in the lower part, and more or less so up to the summit. The fronds when drying have a faint sweet scent, unlike the generality of British ferns.

1950

1437.

ASPLENIUM Adiantum-nigrum.

Black Maidenhair Spleenwort.

CRYPTOGAMIA Filices.

GEN. CHAR. *Fructif.* in scattered lines. *Involucrum* originating laterally from a vein, and bursting inwardly.

SPEC. CHAR. Frond somewhat deltoid, alternately thrice pinnated; leaflets lanceolate, sharpish, deeply serrated.

SYN. Asplenium Adiantum-nigrum. *Linn. Sp. Pl.* 1541. *Sm. Fl. Brit.* 1131. *Huds.* 454. *With.* 770. *Hull.* 242. *Relh.* 409. *Sibth.* 269. *Abbot.* 225. *Bolt. Fil.* 30. *t.* 17.

Adiantum nigrum officinarum. *Raii Syn.* 126. *n.* 10. also 127. *n.* 12, 13.

FREQUENT in dry shady hedge bottoms, about the roots of old trees, on ruined buildings and among rocks, bearing seed in the summer and autumn.

Root perennial, black and tufted. Fronds numerous, upright, a foot or thereabouts in height, firm, oblong, but assuming a deltoid or triangular figure from the elongation of their first pair of ramifications. They are throughout alternately tripinnate; the leaflets rather acutely and deeply serrated or cut, except at their base, which is entire and wedge-shaped. The colour of the frond is a darkish shining green; that of the stalk deep purple, and polished. The covers of the fructification are very conspicuous for their whiteness and abundance. Capsules red-brown.

The variety β of *Fl. Brit.* which is No. 13 of Ray's *Synopsis*, was found by Sherard in a dark cave on the mountains of Mourne, Ireland, and is preserved in his herbarium at Oxford, where, by the kind permission of Professor Williams, we have examined it. Nothing can be more delicate and elegant than the specimen. We think with Dillenius it most probably belongs to this species, and it seems analogous to the variety of *Polypodium vulgare*, called the *cambricum*, being like that finely cut and destitute of fructification.

1951

1772.

Gymnostomum Heimii.

Nov. 1, 1808. Published by Jas. Sowerby, London.

GYMNOSTOMUM Heimii.

Long-stalked Beardless-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* without a fringe. *Lid* deciduous. *Veil* separating entire from the base.

SPEC. CHAR. Leaves elliptic-lanceolate, acute, minutely serrated towards the point. Capsule cylindrical. Lid obliquely beaked.

SYN. Gymnostomum Heimii. *Hedw. Sp. Musc.* 32. *Crypt. v.* 1. 80. *t.* 30. *Sm. Fl. Brit.* 1162. *Turn. Musc. Hib.* 9.

Bryum Heimii. *Dicks. Crypt. fasc.* 2. 4. *With.* 815. *Hull.* 257.

OUR specimens of this uncommon moss were gathered in Anglesea by the Rev. H. Davies, bearing ripe capsules in May. Mr. G. Don has found the same species near Forfar, Angusshire, and Mr. Turner in Ireland.

The roots are annual. Stems simple, forming dense tufts, scarcely half an inch high, leafy. Leaves of a light, often brownish, green, strongly reticulated, slightly spreading, elliptic-lanceolate, acute, flat, or somewhat carinated, with a prominent rib. Their margin minutely serrated about the point only, sometimes entire throughout, especially in the inner leaves. Fruitstalk solitary, terminal, about an inch long, yellow when young with a reddish base, at length brown. Capsule upright, brown, smooth, cylindrical with a widish mouth. Lid taper, oblique, rather shorter than the capsule, springing from a flat base, and attached by its centre to the *columella*, which, as usual in the genus, rises above the edge of the capsule.

Nov. 1.1808. Published by Ja.s Sowerby London.

GRIMMIA Schisti.

Slate Grimmia.

CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* simple, of 16 teeth, broadest at their base. *Flowers* terminal. *Veil* cylindrical.

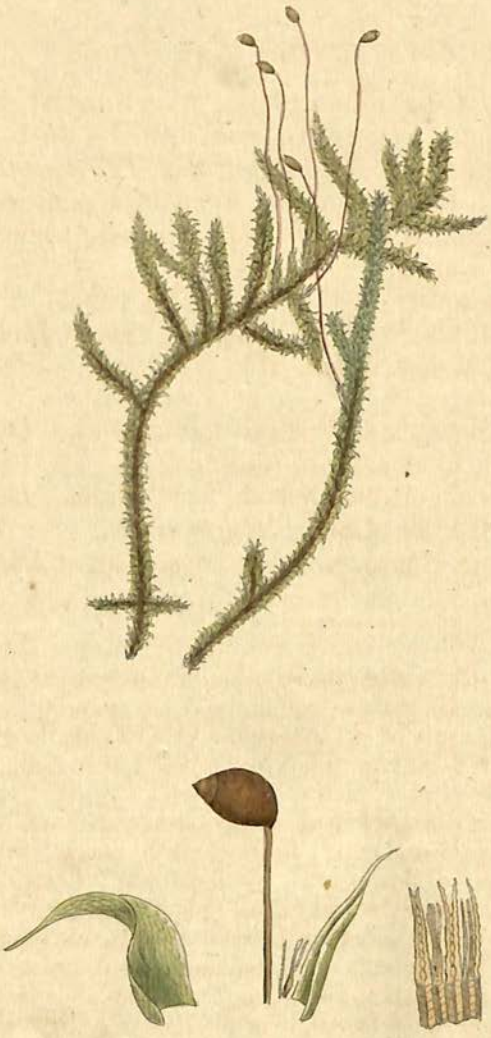
SPEC. CHAR. Leaves awlshaped, keeled, incurved when dry. Capsule bell-shaped, furrowed, glandular at the base. Lid conical.

SYN. Grimmia Schisti. *Sm. Fl. Brit.* 1185.
Bryum Schisti. *Retz. Prod.* 261.
B. *Fl. Dan. t.* 538. *f.* 2.

WE believe Mr. George Don, who favoured us with this moss, is the only person who has found it in Britain. He has observed it growing on stones by rivulets, in the shade, on Loch na gore and Clova mountains in Angus-shire, in July; and on a rock, whose top is always covered with snow, near Loch Arden, among the Cairn Gorm mountains of Inverness-shire, in the middle of April 1803.

The roots seem to be perennial rather than annual. The plants form dense velvet-like tufts of a bright green, owing to the long slender silky leaves, which, from a broad base, are awlshaped, keeled, concave and entire, much incurved when dry. Fruitstalk erect, not quite straight, scarcely half an inch high; pellucid, yellow and shining when young; afterwards browner. Capsule bell-shaped, strongly but somewhat irregularly furrowed longitudinally, brown; furnished with a glandular swelling at the top of the stalk on one side, which is scarcely visible but in a young state. Lid conical, short, oblique, pale orange-coloured. Fringe short, reddish. In the *Flora Danica* the veil is represented as black.

1953
1574.



Hypnum squarrosum.

Nov. 1. 1806. Published by Ja.s Sowerby, London.

HYPNUM squarrosum.

Drooping-leaved Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem branched, somewhat pinnated. Leaves ovate, pointed, keeled, recurved, without ribs. Lid conical.

SYN. Hypnum squarrosum. *Linn. Sp. Pl.* 1593. *Sm. Fl. Brit.* 1323. *Hedw. Sp. Musc.* 281. *Huds.* 502. *With.* 857. *Hull.* 271. *Relh.* 435. *Sibth.* 299. *Abbot.* 249.

H. repens, triangularibus reflexis foliis, majus. *Dill. Musc.* 303. *t.* 39. *f.* 38. *Raii Syn.* 82.

β. H. repens, triangularibus reflexis foliis, minus. *Dill. Musc.* 304. *t.* 39. *f.* 39. *Raii Syn.* 82.

H. squarrosum. *Swartz. Musc. Suec.* 59. *Ehrh. Crypt.* 36.

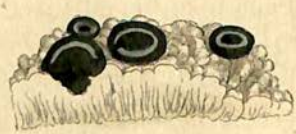
COMMON in shady damp woods, and under hedges, producing its fruit occasionally in autumn as well as spring, but by no means frequently at either season. Our specimens with ripe capsules were found in the New Forest, last March, by C. Lyell, Esq.

The perennial stems are branched in a pinnate manner, and are leafy, red, rigid and wiry, forming loose elastic tufts; their branches curved downwards, taper-pointed. Leaves of a yellowish green, closely imbricated generally in 5 rows, ovate, clasping the stem, entire, ribless, smooth, folded into a sort of keel; their points elongated and curved downward. Fruitstalks about an inch and half long, red, smooth. Sheaths close, with taper-pointed leaves, their points spreading. Capsule drooping, ovate, smooth, short and turgid. Lid conical, short, with a minute point.

The variety β has the appearance of a different species, being much more pale and slender in habit, with shorter more distant branches, and a somewhat longer lid, but we find no essential mark of discrimination.

1954

2020



Lecidea diacapsis

Newcastle. Publish'd by Jas Sowerby London.

LICHEN diacapsis.

Two-fold-shielded Tartareous Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust blueish-white, tartareous, its surface composed of minute undulations. Shields clustered, somewhat sunk; their disk flat, black or brown; their margin thick, externally black, its edge whitish.

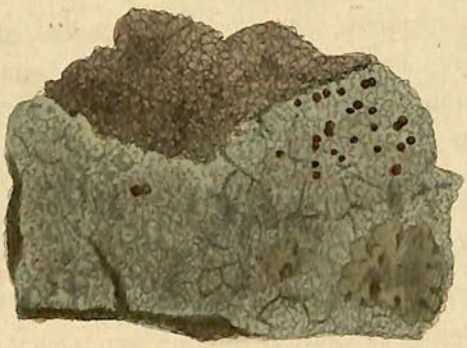
SYN. Parmelia diacapsis. *Ach. Mss. Winch Guide, v. 2. 51.*

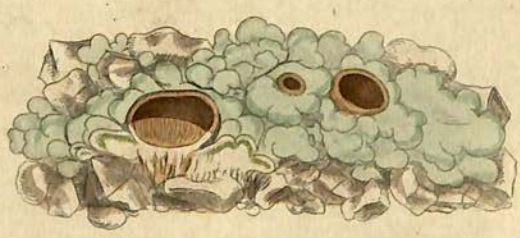
COMMUNICATED to us from Yew How, a hill at the head of Coniston water, Lancashire, by S. Hailstone, Esq. Mr. Turner, on the authority of an original specimen, assures us it is the above plant of Mr. Winch, found in Durham by the Rev. Mr. Harriman, and sent to Professor Acharius, to whom it proved new, and from whom it received the specific name. We presume however, with Mr. Hailstone, that it belongs to the genus *Lecidea*, not *Parmelia*, of the learned author last mentioned.

Our specimen conforms to all the inequalities of a soft brown stone on which it grew, the crust being uninterrupted, half a line thick, tartareous, white or greenish within; its surface white inclining to greyish or blueish, smooth, not mealy, but all over most curiously and minutely wrinkled, plaited, or tuberculated, so as in many parts to represent the entangled imbricated conformation of *L. incurvus*, *t.* 1375, but remotely, and far less remarkably than *L. circinatus*, *t.* 1941, imitates an imbricated *Lichen*. This undulated surface however, well defined "*gyroso-verrucosa*" by Acharius, seems to us a clear characteristic of the species. The shields are small, sessile or rather sunk, clustered; their disk flat, sometimes black, sometimes red-brown; their margin very thick and tumid, externally black or greyish, its inner edge undulated, grey or white. There is certainly no accessory margin from the substance of the crust itself.

1955

2116.





Psora globulosa

Newman del. Published by Sir J. Smeaton, London.

LICHEN glebulosus.

Broken-crusted Brown-shielded Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

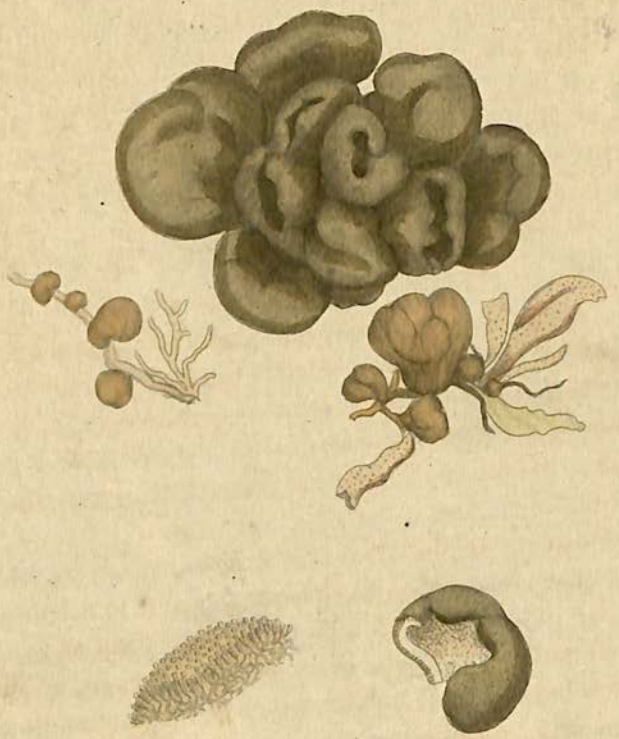
SPEC. CHAR. Crust imbricated, minutely lobed, dispersed, glaucous-white; lobes rounded, convex, adherent. Shields convex, deep red-brown, with a thin entire border of the same colour.

SYN. Lecidea testacea. *Winch Guide, v.* 2. 42.

ABUNDANT on quartzose rocks at Lanchester, and walls at Knitsley, Durham, according to Mr. Winch, to whom we are indebted for this specimen. We are nevertheless obliged to correct its appellation in that gentleman's work, and to describe it as a new species, the *Lichen saxifragus* of the *Linn. Trans. v.* 1. *t.* 4. *f.* 4, *Psora testacea* of Hoffmann, being a totally distinct plant.

The crust of *L. glebulosus* is, as the name implies, composed of innumerable minute fragments or portions, so that it cannot be separated entire from the stone; and those fragments consist of little, imbricated, rounded, convex, often notched, lobes or leaves, smooth and of a pale glaucous white on their upper side, the under being closely adherent to the stone. The aggregate crust has a dirty aspect, from the interstices being darker, or occupied by adventitious matter. The shields are scattered, sessile, small, though much larger than the lobes of the crust; when fresh of a dark but reddish brown, somewhat convex and thick, encompassed with a thin even border, of their own substance and colour, though rather paler. When dry they are almost black.

1956
2548



Corynephora marina

Nov. 1, 1818. Published by the Society, London.

RIVULARIA tuberiformis.

Potatoe Rivularia.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Frond* gelatinous, firm, destitute of an external cuticle. *Fructification* among jointed filaments, lodged in the substance of the frond.

SPEC. CHAR. Frond irregularly globose, inflated, pale brown; white within. Seeds vertically disposed in rows at the summits of the filaments.

COMMUNICATED by the Rev. G. R. Leathes, who found it adhering to rocks and submarine plants on the coast of the isle of Wight in August 1808. Mr. Turner and Mr. Sowerby observed it nine years before at Kynance cove, Cornwall, and the former assures us it is common about the shores of all the Hebrides. Yet we can find no traces of its being any where described.

When floating in the sea water it looks, as we are told, extremely like an assemblage of young potatoes; in colour as well as size and shape. Each full-grown plant is half an inch, or near an inch, in diameter, of an irregularly round, or imperfectly globose, figure, hollow, pale brown, gelatinous and rather tender, internally white. A perpendicular section when magnified shows the substance to be a congeries of entangled filaments, whose upper extremities meet in a parallel order, all on a level, at the surface, and in each of those extremities 3 or 4 brown seeds are disposed one above another. No slender pellucid filaments extend, as in some species of *Rivularia*, beyond the seeds.——This plant, when dried with due care, adheres to paper, and preserves tolerably well, only assuming a darker hue.

1069.

Lactuca virosa.

Pub. 1 Dec. 8. Published by Jas. Sowerby, London.

LACTUCA virosa.
Strong-scented Lettuce.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* naked. *Cal.* imbricated, cylindrical, with a membranous margin. *Down* simple, on a foot-stalk.

SPEC. CHAR. Leaves horizontal, finely toothed; their keel prickly.

SYN. Lactuca virosa. *Linn. Sp. Pl.* 1119. *Sm. Fl. Brit.* 819. *Huds.* 337. *With.* 677. *Hull.* 175. *Relh.* 305. *Sibth.* 237. *Lightf.* 429. *Woodv. Suppl. t.* 250.

L. sylvestris major, odore opii. *Raii Syn.* 161; and L. sylvestris folio non laciniato. *ib.* 162.

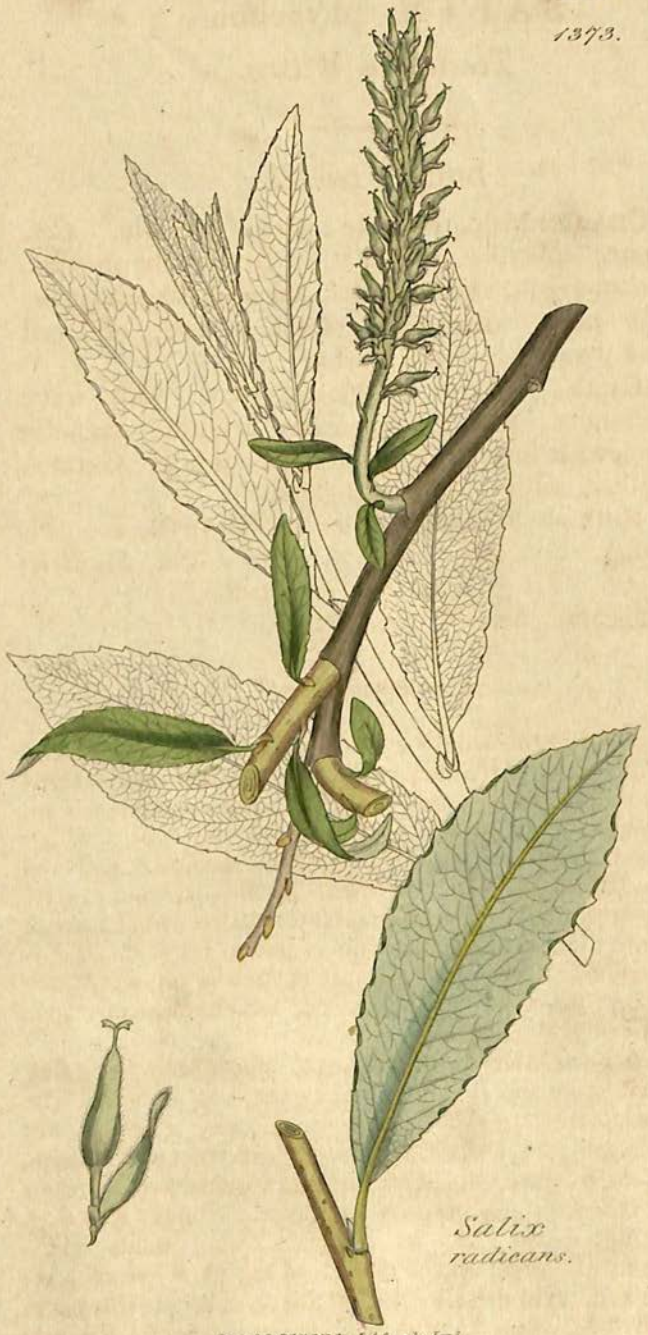
THIS, the largest of our wild lettuces, grows on open sunny chalky banks and old flint walls, and sometimes on dry gravelly banks. Our specimens were collected near Mackerell's tower, Norwich, and at Battersea. It is biennial, and flowers from the end of July to the middle of September.

The whole plant abounds with a white milky juice, smelling like opium and possessing the same narcotic qualities. It issues suddenly in large drops from the calyx and more tender leaves on the slightest touch. The stem is erect, wand-like, round, sparingly leafy, prickly, brown or reddish, panicled at the summit. Leaves smoothish, rather glaucous, finely and sharply toothed; the radical ones numerous, obovate, undivided; the rest smaller, clasping the stem, more or less waved or sinuated. Main rib in all beset with straight parallel prickles. Floral leaves heart-shaped, pointed. Flowers small, palish yellow; their stalks bearing many small bracteas. Calyx smooth. Seeds furrowed. Down rough.

Petiver's figures induce us, with Dr. Stokes, to refer both the above plants of Ray to this species, though the latter of the two is mentioned in the *Synopsis* as if it belonged to *L. Scariola, t.* 268.

1958

1373.



Salix radicans.

Dec.1.1808. Published by Jas. Sowerby Lond.

SALIX phylicifolia.

Tea-leaved Willow.

DIOECIA Diandria.

GEN. CHAR. Male, *Cal.* the scales of a catkin. *Cor.* none. *Nectary* a gland at the base of the stamina. *Stam.* 1—5. Female, *Cal.* and *Nect.* like the male. *Cor.* none. *Stigmas* 2. *Caps.* superior, of 1 cell and 2 valves. *Seeds* downy.

SPEC. CHAR. Leaves elliptic-lanceolate, with wavy serratures, smooth; glaucous beneath. Stipulas somewhat lunate, glandular on the inside. Germen stalked, silky. Style elongated.

SYN. Salix phylicifolia. *Linn. Sp. Pl.* 1442, *α*. *Fl. Lapp. ed.* 2. 291. *t.* 8. *f.* d. *n.* 351. *Sm. Fl. Brit.* 1049. *Tr. of Linn. Soc. v.* 6. 123.

S. radicans. *Sm. Fl. Brit.* 1053.

CUTTINGS of this willow were originally sent to Mr. Crowe from Scotland by Mr. Dickson. Having for several seasons observed its growth, and this summer its female catkins, I am enabled with certainty to reduce it to the *phylicifolia*, which latter I had only known by Mr. Lightfoot's specimen, gathered young in Breadalbane by the Rev. Dr. Stuart, and exactly agreeing with the authentic Lapland one in the Linnæan herbarium. Having tried in vain to obtain the plant of Dr. Stuart alive, I have the more pleasure in finding myself already possessed of it, under another name, which must now give way to the older appellation.

This is a low tree or rather bush, whose long spreading decumbent branches take root as they extend on all sides. The young twigs are purplish or brown. Leaves scattered, not much spreading, on short stalks, elliptic-lanceolate, acute, 2 inches long, smooth, harsh, bitter, variously crenate or serrated, the serratures peculiarly undulated; upper side dark and shining; under glaucous. Stipulas small, lunate, glandular towards the base on the inside. Catkins from separate buds, stalked, cylindrical. Scales linear, silky at the back. Germen stalked, ovato-lanceolate, silky. Style smooth. Stigmas small, cloven.

1959
1349.

Salix fusca γ. prostrata.

Drawn 1808. Published by Jas. Sowerby, London.

SALIX prostrata.

Prostrate Dwarf Willow.

DIOECIA Diandria.

GEN. CHAR. Male, *Cal.* the scales of a catkin. *Cor.* none. *Nectary* a gland at the base of the stamina. *Stam.* 1—5. Female, *Cal.* and *Nect.* like the male. *Cor.* none. *Stigmas* 2. *Caps.* superior, of 1 cell and 2 valves. *Seeds* downy.

SPEC. CHAR. Leaves elliptical, acute, convex, rarely toothed; glaucous, rugged and silky beneath. Stem prostrate. Branches elongated, straight.

SYN. Salix prostrata. *Sm. Fl. Brit.* 1060. *Galpine*, 83.
S. polymorpha. *Ehrh. Arb.* 49?

MR. CROWE received this little Willow many years ago from Mr. Dickson, who found it in Scotland. It has ever since preserved its original habit in the garden. Mr. E. Forster has gathered what we find to be the same on Epping Forest, near High Beech, but neither Mr. Crowe nor any other person, to our knowledge, has found it in Norfolk. It agrees well with Ehrhart's own specimens of his *polymorpha*, but he seems to have confounded several species under that name. It will not agree with the Linnæan characters of *S. incubacea*, a species we have never been able to ascertain.

The stems form an entangled mat, most of the branches being very long, tough, straight and slender, spreading very widely, close to the ground, in all directions, while some few short ones stand erect. All are leafy, round, finely downy when young. Leaves scattered, on shortish thick stalks, elliptical or elliptic-lanceolate, scarcely an inch long, acute, somewhat recurved, mostly entire, but here and there furnished with one or two conspicuous teeth; above dark and opaque, minutely downy, veiny, convex; beneath concave, hardly revolute, glaucous, rugged with veins, and somewhat silky. Stipulas rare and small, or merely little glands. Sometimes the scales of the axillary buds look like stipulas. Catkins produced in May, not earlier, ovate, obtuse, dense, silky. Scales with a blunt brown tip. Germen ovate, silky, somewhat stalked. Style short and thick. Stigmas cloven.

1960
1347.

Salix fusca.

Dec.1808. Published by Jas. Sowerby, London.

SALIX fusca.

Brownish Dwarf Willow.

DIOECIA Diandria.

GEN. CHAR. Male, *Cal.* the scales of a catkin. *Cor.* none. *Nectary* a gland at the base of the stamina. *Stam.* 1—5. Female, *Cal.* and *Nect.* like the male. *Cor.* none. *Stigmas* 2. *Caps.* superior, of 1 cell and 2 valves. *Seeds* downy.

SPEC. CHAR. Leaves elliptic-oblong, acute, straight, flat, with a few glandular teeth; glaucous and silky beneath. Footstalks slender. Stem erect, much branched. Stipulas none.

SYN. Salix fusca. *Linn. Sp. Pl.* 1447. *Fl. Lapp. ed.* 2. 299. *t.* 8. *f.* r. *Fl. Suec. ed.* 2. 351. *Sm. Fl. Brit.* 1060. *Galpine*, 83.

NOT rare on moist mountainous heaths in the north, flowering in May.

The stem forms an upright bushy shrub, about a foot high, very much branched, not creeping, as far as we can observe from cultivating it for many years, though Linnæus says otherwise. Branches round, downy when young, thickly clothed with leaves. Buds large, ovate, red and shining. Leaves on longish slender footstalks, always we believe without stipulas, scarcely an inch long, elliptic-oblong, sharpish, almost perfectly flat and straight, not revolute, their margin not cut nor serrated, but beset with distant glandular teeth, most conspicuous in the older ones; dark green and smoothish above; glaucous and silky, with minute veins, beneath. In drying they turn black or brown. Catkins ovate, short and dense, with brown hairy obtuse scales. Anthers red before they burst. Nectary ovate, brown. The scales of the female catkins, sent for the same species by Dr. Stuart, and described in *Fl. Brit.*, are so different as to cause a doubt of their identity. We are certain of the distinctness of this species, though, possibly, Linnæus may have confounded some others with it which we shall describe hereafter, and which led him to describe the stem as creeping. We believe moreover that *S. repens, t.* 183, is best distinguished from *fusca* by its creeping stem, the leaves being not always entire.

1951
1350*

Published by Jas. Sowerby, London.

SALIX parvifolia.

Small-leaved Dwarf Willow.

DIOECIA Diandria.

GEN. CHAR. Male, *Cal.* the scales of a catkin. *Cor.* none. *Nectary* a gland at the base of the stamina. *Stam.* 1—5. Female, *Cal.* and *Nect.* like the male. *Cor.* none. *Stigmas* 2. *Caps.* superior, of 1 cell and 2 valves. *Seeds* downy.

SPEC. CHAR. Leaves elliptical, nearly entire, with recurved points; glaucous and silky beneath. Stem decumbent. Stipulas ovate, entire.

GATHERED by the late Mr. Crowe at East Winch and Wrongay fen, Norfolk. After having been cultivated in his garden for several years along with *S. repens*, *fusca*, *prostrata* and *adscendens* hereafter described, it has constantly preserved its habit and characters, and cannot be confounded with any other willow.

It flowers at the end of April or early in May. The stem is much branched, entangled and decumbent. Branches elongated, wand-like, a foot or 18 inches long, spreading obliquely or else procumbent, very densely clothed with innumerable leaves, round, thickish, and hairy or silky. Leaves spreading or recurved, about half an inch long, of a broad elliptical figure, with recurved points; the margin slightly revolute, either quite entire, or marked here and there with a minute glandular tooth. The upper surface is of a dull lightish green and nearly smooth; the under glaucous and more or less silky. Footstalks very broad and short. Buds large, ovate, silky. Stipulas usually present, but small, ovate, entire, hairy, tipped with a red gland. Female catkins ovate, dense, yellowish. Scales obovate, brown, hairy. Germen stalked, silky, at length becoming nearly smooth. Style short, thick. Stigmas deeply divided, thick, blunt.

Living specimens of this plant, shut up for 2 or 3 days in a tin box, diffuse when opened an intolerably fetid fish-like scent, which we have observed in no other willow except *adscendens*.

1962
1350.

Salix fusca, δ adscendens.

Dec. 1. 1806. Published by Jas. Sowerby, London.

SALIX adscendens.

Ascending Dwarf Willow.

DIOECIA Diandria.

GEN. CHAR. Male, *Cal.* the scales of a catkin. *Cor.* none. *Nectary* a gland at the base of the stamina. *Stam.* 1—5. Female, *Cal.* and *Nect.* like the male. *Cor.* none. *Stigmas* 2. *Caps.* superior, of 1 cell and 2 valves. *Seeds* downy.

SPEC. CHAR. Leaves elliptic-oblong, somewhat serrated, with recurved points; glaucous and silky beneath. Stem ascending. Stipulas ovate, serrated.

OBSERVED by Mr. Crowe and Mr. E. Forster upon Porland heath, Norfolk. We have noticed it in several moist heathy or sandy places, but long supposed it a variety of *S. argentea, t.* 1364, from which, having cultivated and examined it for a number of years, we now find it widely and unquestionably distinct. That species when left to itself, always forms an upright bush, and is remarkable for its brilliant silvery leaves, which are always entire. The present is a creeping low shrub, with long straight obliquely ascending branches, and much less silvery leaves even on their under side. The leaves are also much more oblong, and many of them decidedly serrated. It is most akin to our *S. parvifolia*, and has the same smell, but is about twice as large, with less crowded recurved leaves, and with serrated stipulas. It flowers with that species in May, 2 or 3 weeks later than the *repens*. The female catkins and capsules agree with those of *parvifolia*. We do not find such marks of discrimination in the parts of fructification in this tribe of Willows as in the larger kinds, nor have we had opportunities of verifying their species by raising them from seed. *S. caprea, aquatica, oleifolia, hirta, cotinifolia*, &c., as well as *purpurea, Helix*, &c., have grown from seed in Mr. Crowe's garden, and prove as permanent in habit and characters as any plants in the world.

1963
1722.

Grimmia
stricta.

Dec. 1, 1818. Published by Jas. Sowerby, London.

GRIMMIA stricta.

Upright Brown Grimmia.

CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* simple, of 16 teeth, broadest at their base. *Flowers* terminal. *Veil* cylindrical.

SPEC. CHAR. Leaves ovato-lanceolate, pointed, somewhat bearded, imbricated, a little spreading. Capsule top-shaped, stalked. Branches straight, erect.

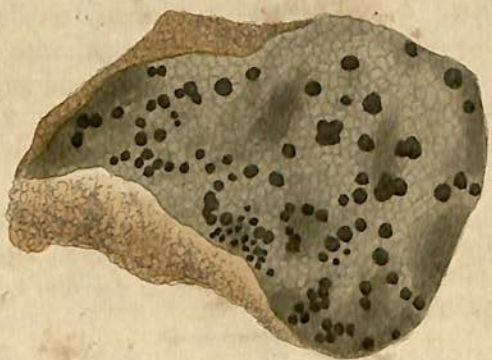
SYN. Grimmia stricta. *Turn. Musc. Hib.* 20. *t.* 2. *f.* 1.

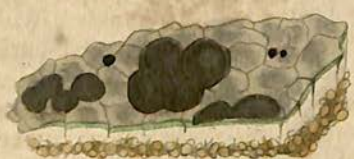
MR. TURNER, to whom we are obliged for this very rare moss, and who alone has hitherto mentioned it, received this specimen from Dr. Scott, who found it in Ireland, on stones near Swanlinbar. Afterwards Mr. Turner himself gathered the same on the rocks of Snowdon.

Its dark copper-colour is remarkable. The stems are more upright and straight, as well as less copiously branched, than those of *G. apocarpa*, *t.* 1134, and the leaves are narrower, with very slight traces in general of any hair at the tip, though in some that appendage is evident. The capsules are elevated on a stalk, full as long as themselves, and are top-shaped, or urn-shaped, very dark-coloured, smooth, with a convex, blunt-pointed, straight lid. The whole plant when dry is blackish and very brittle, compared by Mr. Turner to *Andræa alpina*, *t.* 1278, in its first aspect.

1964

2018.





Lecidea confluens.

Drawn & Publish'd by Jas Sowerby, London.

LICHEN confluens.

Confluent-shielded Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust somewhat uneven, tessellated, of a smoky white. Shields sessile, black, with a black border; at length convex, confluent and angular.

SYN. Lichen confluens. *Weber Goett.* 180. *t.* 2. *Ach. Prod.* 60. *Dicks. Crypt. fasc.* 1. 9. *With. v.* 4. 8. *Hull.* 286.
Lecidea confluens. *Ach. Meth.* 40.
Verrucaria confluens. *Hoffm. Pl. Lich. t.* 19. *f.* 1.
β. Lichen pilularis. *Davies in Tr. of L. Soc. v.* 2. 283. *t.* 28. *f.* 1.

I GATHERED this first, about 1782, on rocks on the Pentland hills near Edinburgh, in some of those hours of relaxation, so agreeably employed in botanical rambles, with a numerous train of college friends, then ardent and curious like myself. Of these more than half have sunk into an early grave, and even now, as I write, the most valuable of them all is just prematurely cut off from an unspotted and most extensively useful life *. How truly are we "sojourners here, as all our fathers were!"

This *Lichen* being shown to Mr. Dickson was pronounced by him the *confluens* of Weber, which he had already found in England. It grows on schistose or other rocks, and may easily be pared off in large pieces when moist. The crust is tartareous, soft and friable when dry, white within, its surface of a grey or smoky hue, tessellated, uneven, but not granulated, each little portion being rather concave; at least if not very old. Shields black, closely sessile, more or less clustered, at first flat and greyish, with an elevated, smooth, black border; afterwards they grow convex, and by mutual pressure angular, being often so crowded together, as for 4 or 5 of them to make one aggregate tessellated shield. In the variety β they are almost globose, but less aggregate.

* Richard Lubbock, M.D., died at Norwich, Sept. 2, 1808, aged 48.

1965
2387.

Chondrus membranifolius.

Dec. 1, 1808. Published by Jas. Sowerby, London.

FUCUS membranifolius.

Membranous-leaved Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Stalk cylindrical, branched. Leaflets membranous, wedge-shaped, palmate, jagged, obtuse, without ribs. Tubercles lateral, ovate, somewhat stalked.

SYN. Fucus membranifolius. *Gooden. and Woodw. Tr. of Linn. Soc. v. 3. 120. t. 16. Turn. Syn. 25. Hist. Fucor. v. 2. 6. t. 74. With. v. 4. 106. Hull. 317.*

β. F. ceranoides γ. *Huds. 583.*

F. parvus, cauliculis teretibus, summitatibus membranaceis dilatatis et laceratis. *Raii Syn. 44*; excluding Morison's syn.

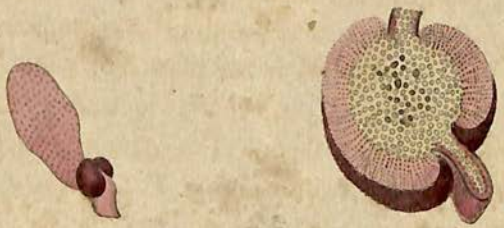
γ. F. fimbriatus. *Huds. 574. With. v. 4. 105*; "excluding Gmelin's syn." *Turn.*

NOT rare on the coasts of Britain, bearing fruit in winter. Mr. Turner considers it as perennial.

From a small roundish disk arise several fronds, usually near a span high, of a dull brownish red, greenish in decay, whose stalks are horny, much and irregularly branched, cylindrical, sometimes flattened and dilated upwards. Leaflets numerous, more or less stalked, membranous inclining to coriaceous, without ribs or veins, wedge-shaped but palmate, or in some cases pinnatifid; the summits obtuse and jagged; the margins entire, except in variety γ, in which they are finely fringed. Fructification usually situated on the upper part of the stalks, sometimes on the surface or edges of the leaflets, stalked, though sometimes but slightly, ovate, small, each tubercle containing a globular mass of minute seeds. Mr. Turner has also remarked oblong, dark-red, slightly elevated spots, on both sides of the disk of some leaflets, consisting of dense jointed fibres like those in the tubercles of *F. Griffithsiæ, t. 1926*, which therefore he considers as belonging to the fructification.

1966

2388



Chondrus Brodiæi

Pl. 1968. Published by Jas. Sowerby London.

FUCUS Brodiæi.

Brodiean Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Stalk cylindrical, branched. Leaflets membranous, oblong, simple or forked, proliferous, without ribs. Tubercles spherical, sessile about the summits of the leaves.

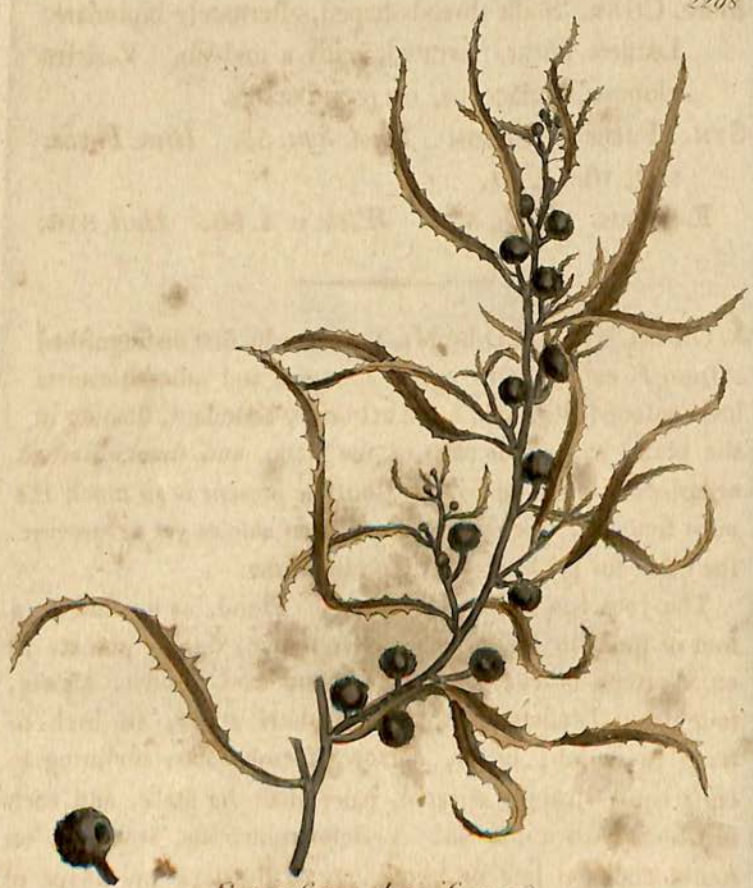
SYN. Fucus Brodiæi. *Turn. Hist. Fucor. v. 2. 2. t. 72.*

FOR this rare Fucus we are obliged to the Earl of Seaforth, who gathered it on the Scottish coast at Lossiemouth, from whence the same species had previously been sent to Mr. Turner by our often-mentioned friend and patron Mr. Brodie of Brodie. He is justly commemorated in the specific name, as the discoverer of many new British plants, not to mention his extensive knowledge and zeal as a practical botanist and cultivator, for which reasons I had the pleasure of naming a new genus *Brodiæa* last March in a paper communicated to the Linnæan Society. It is a liliaceous plant, with internal petals like *Tulbaghia*.

Fucus Brodiæi is next akin to the *membranifolius*, from which Mr. Turner first distinguished it. The leaflets are more elongated, especially in their lower part, though somewhat wedge-shaped upward, and are moreover proliferous. The tubercles are very different, being sphærical, sessile or rather innate at the summits of the leaflets, which occasionally throw out new leaflets beyond them. The coating of each tubercle consists of articulated fibres, as in *F. Griffithsiæ*, *t.* 1926, but no separate spots, composed of such fibres, have been observed in this as in *F. membranifolius*, *t.* 1965.

1967

2208



Sargassum baccíferum?

Jan.1.1809. Published by Jn.o Sowerby London.

FUCUS bacciferus.

Berry-bearing Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Stalk thread-shaped, alternately bipinnate. Leaflets linear, serrated, with a mid-rib. Vesicles globose, coriaceous, on round stalks.

SYN. Fucus bacciferus. *Turn. Syn. 55. Hist. Fucor. v. 1. 103. t. 47.*

F. natans. *Huds. 572. With. v. 4. 86. Hull. 316.*

COMMUNICATED by Mr. Turner, who first distinguished it from *F. natans*, with which Linnæus and other botanists had confounded it. Both are extremely abundant, floating in the ocean in various parts of the globe, and thence washed occasionally upon our shores; but the present is so much the most frequent, that we have not been able as yet to procure the other for publication at the same time.

The root has not been observed. Frond, as we find it, a foot or more in length, dark olive brown, doubly pinnate in an alternate order; the stalks round and slender, zigzag, toughish. Leaflets alternate, on short stalks, an inch or more in length, linear, narrow, membranous inclining to coriaceous, strongly serrated, paler than the stalk, and each furnished with a mid-rib. Vesicles numerous, scattered, on round stalks a line or two long, of the size and shape of grains of black pepper, roughish, coriaceous, dark brown, hollow and smooth within. No fructification has been observed.——Both the *Fuci* abovementioned are comprehended by voyagers under the appellation of Gulph-weed.

Cystoseira ericoides.

Jan.1.1809. Published by Jas. Sowerby, London.

FUCUS ericoides.

Heath-like Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Frond round, repeatedly branched. Leaflets linear or pinnatifid. Upper branches slender, bearing oval innate vesicles and awl-shaped spines. Tubercles scattered among the spines.

SYN. Fucus ericoides. *Linn. Sp. Pl.* 1631. *Gooden. and Woodw. Tr. of Linn. Soc. v.* 3. 130. *Hull.* 317.

F. selaginoides. *Linn. Mant.* 134. *Gooden. and Woodw. Tr. of Linn. Soc. v.* 3. 132. *Hull.* 318. *Turn. Syn.* 85.

F. tamariscifolius. *Huds.* 576. *With. v.* 4. 86. *Hull.* 318. *Turn. Syn.* 88.

F. Erica-marina. *Gmel. Fuci,* 128. *t.* 11. *f.* 2.

F. foliis ericæ seu tamarisci. *Raii Syn.* 49.

MR. STACKHOUSE, it seems, long ago contended that the synonyms above belonged to one and the same species, and Mr. Turner assures us he is now of the same opinion. We are obliged to our kind friend last named for specimens gathered by Mrs. Griffiths on the marine rocks of Devonshire, and others found by himself on Yarmouth beach. We have never been able to find sufficient differences to mark even a distinct variety between *F. ericoides* and *selaginoides*. Indeed Linnæus adopted the former from other authors, and described only the latter from a specimen.

The root is a very firm orbicular disk. Whole plant of a deep olive brown, black when dry. Frond about a span high, very much and densely branched, round in every part, and tough; the bottom various in thickness from one to three lines; the branches slender and threadshaped. The lower branches bear crowded, narrow, linear leaflets, often an inch long, some of them cut and pinnatifid; these disappear, as Mr. Turner observes, by age. The principal part of the plant consists of other branches, closely beset with innumerable awl-shaped spines, intermixed with which, chiefly about their bases, are numerous little round sessile tubercles, each with a minute hollow at its summit. It fructifies in the summer.

1969
2304

Cystoseira fibrosa

Jan. 1.1809. Published by Jas. Sowerby London.

FUCUS fibrosus.

Fibrous Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Frond round, repeatedly branched. Leaflets undivided and entire; the lower ones mid-ribbed, linear; the rest setaceous. Vesicles oval, innate in the branches. Tubercles crowded, nearly terminal.

SYN. Fucus fibrosus. *Huds.* 575. *Gooden. and Woodw. Tr. of Linn. Soc. v.* 3. 137. *Turn. Syn.* 93. *With. v.* 4. 87. *Hull.* 318.

F. baccatus. *Gmel. Fuci,* 90. *t.* 3. *f.* 2.

F. setaceus. *Huds.* 575. *With. v.* 4. 86.

F. radicibus arborum fibrosis similis. *Raii Syn.* 49.

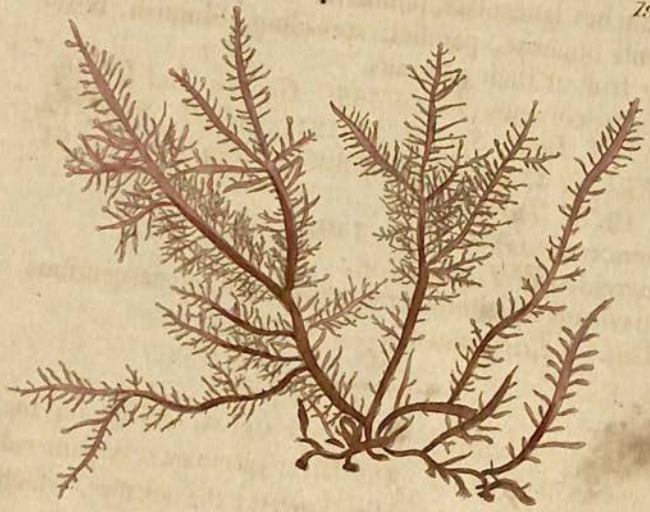
F. seu Acinaria maritima anglicana. *Bocc. Mus. di Fis.* 270. *t.* 6. *f.* 5? copied in Gmelin, *t.* 1. B. *f.* 2, for F. nodosus!

FOR this specimen, gathered on the south coast of England, we are obliged to Mr. Turner. The colour, according to that gentleman, is, in the fresh plant, "a subdiaphanous yellowish olive," but when dried it remains ever after nearly black. The frond is very much branched, from 1 to 3 feet high. Stalk thick and often compressed at the lower part; otherwise round, slender, zigzag. Lower leaflets stalked, linear, obtuse, entire, with a mid-rib; the rest setaceous, various in length. Mr. Turner observes that sometimes all the leaflets are linear, sometimes all setaceous. Elliptical innate vesicles, about a line long, occur here and there along the branches, and at the summits numerous tubercles are densely clustered.

When the leaves are all setaceous, this is supposed to be *F. setaceus* of Hudson, who quotes Boccone's miserable figure; which figure is copied and gratuitously enlarged by Gmelin as a variety of *F. nodosus*. This Boccone's description cannot authorize, but his plant may very well be our *fibrosus*. As he gathered it at Deal, it seems incumbent on English botanists to make something or other of his synonym, and this is one of those cases in which it is as profitable to believe as to examine.

7970

2302



Gelidium corneum?

Sowerby's Engs. Published by Jas. Sowerby, London.

FUCUS corneus.

Horny Pinnate Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Frond horny, much-branched, compressed. Branches lanceolate, pinnatifid or bipinnatifid; segments opposite, parallel, spreading, bluntish, bearing fruit at their summits.

SYN. Fucus corneus. *Huds. 585. Gooden. and Woodw. Tr. of Linn. Soc. v. 3. 181. Turn. Syn. 272. With. v. 4. 117. Hull. 323.* " *Stackh. Ner. 61. t. 12.*" *Turner.*

F. sericeus. *Gmel. Fuci, 149. t. 15. f. 3.*

F. nereideus. *Lightf. 956.*

F. flavicans teretifolius, ramulis pennatim enascentibus. *Dill. in Raii Syn. 50.*

FOUND on submarine rocks and stones, chiefly on the south coasts of England. Our larger specimen was gathered in the isle of Wight by Miss Everett; the smaller, which seems Mr. Stackhouse's *F. pusillus, Ner. 16. t. 6,* Mr. Borrer found at Brighthelmston. Lightfoot says this species is met with "in the Frith of Forth, and other places, but not common." It is said to bear fruit in the summer.

The fronds form entangled tufts, of a light red or tawny hue, with a waxy transparency, and when dry a horny elasticity. They are repeatedly branched, the branches lanceolate, very regularly, and more or less deeply, pinnatifid or pectinate, sometimes simply, often doubly or triply, hence the various species of authors which can hardly be defined as varieties, comprehending the *pinnatus* and *filicinus* of Hudson, 586, the *spinosus* of Gmelin, *t. 18. f. 3,* and, as Mr. Turner suspects, his *capillaceus, t. 15. f. 1.* With this last we are unacquainted. The seeds of *F. corneus* are lodged in the tumid oval extremities of the lateral segments.

Hordeum murinum.

Lin. Trans. Published by Jas. Sowerby, London.

HORDEUM murinum.

Wall, or Mouse Barley.

TRIANDRIA Digynia.

GEN. CHAR. *Calyx* lateral, of 2 valves, containing a single floret, and growing 3 together.

SPEC. CHAR. Lateral flowers male, awned. Calyx-valves of the intermediate flower lanceolate, fringed.

SYN. Hordeum murinum. *Linn. Sp. Pl.* 126. *Sm. Fl. Brit.* 155. *Huds.* 56. *With.* 171. *Hull.* 28. *ed.* 2. 37. *Relh.* 46. *Sibth.* 51. *Abbot.* 26. *Curt. Lond. fasc.* 5. *t.* 9. *Mart. Rust. t.* 43. *Knapp. t.* 104. *Dicks. H. Sicc. fasc.* 13. 10. *Sm. Rel. Rudb.* 12. *f.* 2.

Gramen secalinum et Secale sylvestre. *Raii Syn.* 391.

ONE of the most common of grasses by way-sides under walls, and in waste ground among rubbish, flowering all summer long.

Root annual, fibrous, whitish. Stems numerous, a foot or thereabouts in length, spreading in all directions at their base, but bent at their joints and ascending, smooth, leafy, round. Leaves loosely spreading, acute, rough, of a brightish green, with short stipulas, and smooth, slightly inflated, sheaths, of which the uppermost is much the longest. Spikes solitary, erect, 2 or 3 inches long, dense, their common stalks very brittle, rough-edged. Flowers 3 together, the whole imbricated in 2 rows. Calyx-valves of the 2 outer flowers bristle-shaped, rough; those of the inner one lanceolate and fringed; all tipped with longish very rough awns. Florets solitary in each calyx, lanceolate, very smooth, their outer valve only having a longer and equally rough awn with the calyx. The central flower is sessile, and has both stamens and pistil, with a short rough bristle at the base of the inner valve, which is smooth; the lateral ones are smaller, stalked, and have stamens only. Their inner valve is fringed. ——This is a worthless grass, but has not the bad property of hurting horses' gums like the Squirrel-tail Grass, *t.* 1205, with which, as we have there mentioned, Mr. Curtis confounded it.

Galium uliginosum.
Jan.1 1809 Published by Jas Sowerby, London

GALIUM uliginosum.

Rough Marsh Bed-straw.

TETRANDRIA Monogynia.

GEN. CHAR. *Cor.* of one petal, flat, superior. *Seeds* 2, roundish.

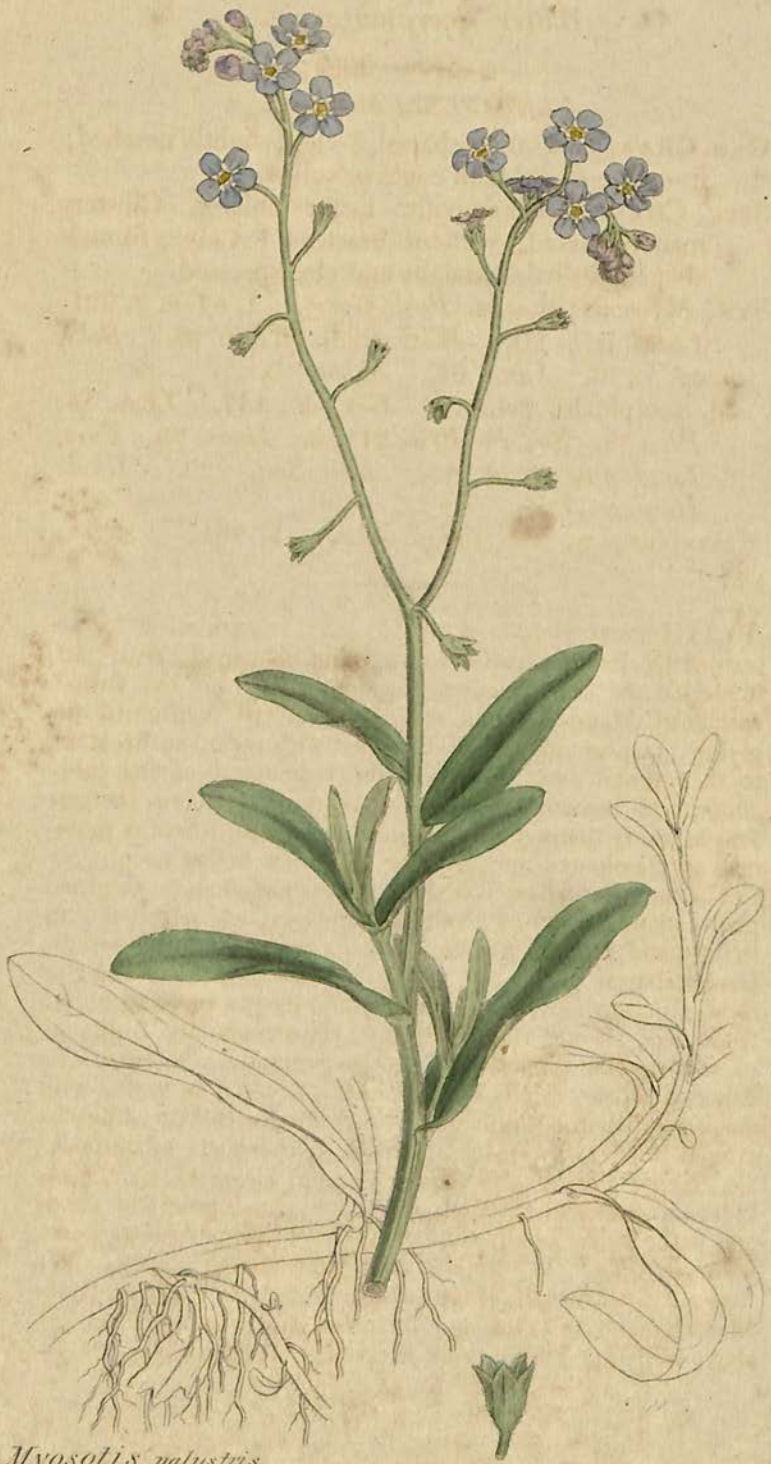
SPEC. CHAR. Leaves six in a whorl, lanceolate, pointed, rigid, their edges rough with reflexed prickles. Fruit smooth, smaller than the corolla.

SYN. Galium uliginosum. *Linn. Sp. Pl.* 153. *Sm. Fl. Brit.* 175. *Huds.* 68. *With.* 188. *Hull.* 36. *ed.* 2. 44. *Relh.* 56. *Sibth.* 58. *Abbot.* 33.

Aparine palustris minor parisiensis, flore albo. *Dill. in Raii Syn.* 225.

OF this little *Galium* there is scarcely a certain figure extant, for those cited in Willdenow's *Sp. Pl.* are equally distinct from it and from each other. J. Bauhin's *Rubia quædam minor, v.* 3. 716, is too imperfect to be at all relied on.

Our plant is not uncommon in Norfolk, growing in wet ditches and boggy places among reeds, water-mints, &c., and flowering in July and August. The roots are small, creeping, perennial. Stems a foot or more in height, branched, rough, so very weak and brittle, that as the leaves stick to every thing around them and to each other, good specimens are with difficulty extricated. The leaves are 6 in a whorl, variously spreading, light green, lanceolate inclining to obovate, tipped with a small bristle, their edges and keel rough with minute prickles pointing backwards, while a simple row of similar prickles often occurs on the upper side near the margin, and these always point forwards. Flowers small, white, on terminal, cloven stalks, which are smooth and usually 3 together. Fruit small, dotted, but scarcely rough, and never, as far as we have observed, hairy.



Myosotis palustris.

MYOSOTIS palustris.

Water Scorpion-grass.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* salver-shaped, 5-cleft, slightly notched; its orifice closed with concave valves.

SPEC. CHAR. Seeds smooth. Leaves oblong. Clusters many-flowered, without bracteas. Calyx funnel-shaped, its hairs straight and close-pressed.

SYN. Myosotis palustris. *Roth. Germ. v.* 1. 87. *v.* 2. 221. *Catal. v.* 3. 30. *With.* 225. *Hull.* 46. *Relh. ed.* 1. 76. *Sibth.* 68. *Abbot.* 40.

M. scorpioides palustris. *Ger. em.* 337. *Linn. Sp. Pl.* 188. *Sm. Fl. Brit.* 212, δ. *Huds.* 78. *Curt. Lond. fasc.* 3. *t.* 13. *Raii Syn.* 229. *Ehrh. Herb.* 21.

Scorpiurus n. 391. *Hall. Hist. v.* 1. 261.

WITH great pleasure we profit of a remark made by the learned Dr. Roth in his *Catalecta*, after his friend Trentepohl, to decide the long-disputed question concerning the British species of *Myosotis*. The acute botanist last mentioned applying our principles, first suggested with regard to *Menthæ*, to the present case, has found the pubescence of the calyx confirm all the other less decisive marks, and stamp the present as a very distinct species from our *t.* 480, where is moreover an uncoloured morsel of the plant now before us.

The peculiar characters then of *M. palustris*, a common plant about rivers and clear watery places, where it blossoms in July and August, are the creeping perennial root, and the funnel-shaped calyx, *fig.* 1. clothed all over with straight, rigid, shining, close-pressed hairs, and having its teeth broad, triangular, shorter than the tube. The enamelled brilliancy of the corolla renders this flower generally admired. The calyx of *M. arvensis* (*M. scorpioides*, *t.* 480,) is ovate, with deeper and sharper segments, and clothed with spreading incurved bristles, by which it sticks to the coats of animals; see *fig.* 2. Perhaps the yellow-flowered kind, *Fl. Brit.* β, is indeed a variety of this last, but the γ, which grows in woods and is the tallest of all, though its calyx agrees with *arvensis*, seems distinct. We hope to examine it another spring. We here acknowledge the favour of our excellent friend Professor Martyn, who 9 years ago furnished us with hints on the above subject. See his edition of Miller's Dictionary.

1974

477.

Allium vineale.

Jan 1, 1800. Published as the Act directs, London.

ALLIUM vineale.

Crow Garlick.

HEXANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of 6 spreading petals. *Spatha* cloven, containing many flowers. *Umbel* dense. *Stigma* simple.

SPEC. CHAR. Umbel bearing bulbs. Leaves cylindrical. Stamina three-pointed.

SYN. Allium vineale. *Linn. Sp. Pl.* 428. *Sm. Fl. Brit.* 359. *Huds.* 139. *With.* 333. *Hull.* 72. *ed.* 2. 94. *Relh.* 132. *Sibth.* 109. *Abbot.* 74. A. sylvestre. *Raii Syn.* 369.

THIS Garlick is found in dry fields, more particularly on a calcareous soil, as well as about old ruinous buildings, flowering in July. Our specimen grew near Mackarel's tower, Norwich.

The root is a small, ovate, white bulb. Stem 2 feet high, upright, slender, round, striated, leafy. Leaves long, tapering, cylindrical, hollow, ribbed, smooth, fading before the flowers come out. Umbel small, with abundance of little ovate acute greenish bulbs, intermixed with a smaller number of capillary smooth purplish flower-stalks, club-shaped at the summit. Spatha pointed, deciduous. Petals closed, pale rose-coloured with green keels. Stamens longer than the petals, the capillary lateral extremities of the 3 trifid ones longer than the part which bears the anther, and spreading horizontally. Germen somewhat pyramidal, with 3 lateral protuberances. Style very short.

1975

1769

Gymnostomum truncatulum

London Published by Jas Sowerby London.

GYMNOSTOMUM truncatulum.

Little Blunt-fruited Beardless-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* without a fringe. *Lid* deciduous. *Veil* separating entire from the base.

SPEC. CHAR. Leaves ovate, pointed, flat, entire. Capsule top-shaped, with a dilated mouth.

SYN. Gymnostomum truncatulum. *Hoffm. Germ. v.* 2. 27. *Sm. Fl. Brit.* 1158. *Sibth.* 274. *Turn. Musc. Hib.* 7. *t.* 1. *f.* d—f.

G. truncatum. *Hedw. Sp. Musc.* 30. *Crypt. v.* 1. 13. *t.* 5.

Bryum truncatulum. *Linn. Sp. Pl.* 1584. *Huds.* 477. *With.* 818. *Hull* 258. *Relh.* 424. *Abbot.* 242. *Curt. Lond. fasc.* 2. *t.* 71.

B. exiguum, creberrimis capsulis rufis. *Dill. Musc.* 347. *t.* 45. *f.* 7. F—K.

B. parvum, erectis subrotundis majusculis capitulis subfuscis, foliis serpilli pellucidis. *Dill. in Raii Syn.* 93.

FREQUENT about banks, dry ditches, and fallow fields, bearing fruit early in the spring.

The roots are annual. The plants scarcely grow crowded, but rather scattered, and have short, mostly simple, stems. Leaves bright green, spreading, ovate or rather somewhat obovate, flat or slightly keeled, not concave, acute with a small point, but not tipped with a hair, furnished with a mid-rib, their margins entire. When dry they are slightly twisted, but not closed together. Fruit-stalk terminal, erect, longer than the stem, almost always solitary. Capsule brown, smooth, short, ovate at the base, its mouth abrupt, dilated, wider in diameter than any other part of the capsule. Lid broad, convex, with an oblique, obtuse, roundish beak, all together about as long as the capsule. Veil brownish, splitting obliquely.

This moss has been celebrated as the "Hyssop of Solomon which springeth out of the wall," but what that really is may be seen in our 18th vol. *t.* 1245.

We beg leave to correct an error respecting *Gymnostomum Griffithianum*, *t.* 1938. The Rev. Mr. Dalton and Mr. Hooker found it on rocks on the west side of Ingleborough, Yorkshire, not in Scotland.

1976

1770.

Gymnostomum intermedium.

Jan. 1 1809. Published by Jas. Sowerby London.

GYMNOSTOMUM intermedium.

Longer Blunt-fruited Beardless-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* without a fringe. *Lid* deciduous. *Veil* separating entire from the base.

SPEC. CHAR. Leaves ovato-lanceolate, pointed, flat, entire. Capsule elliptic-oblong, obtuse.

SYN. Gymnostomum intermedium. *Sm. Fl. Brit.* 1159. *Turn. Musc. Hib.* 7. *t.* 1. *f.* a—c.
Bryum truncatulum. *Ehrh. Crypt.* 14.
B. exiguum, creberrimis capsulis rufis. *Dill. Musc.* 347. *t.* 45. *f.* 7. A—E.
B. exiguum, erectis parvis subrotundis creberrimis capitulis rufis, foliolis serpilli angustis pellucidis. *Dill. in Raii Syn.* 94.

WHAT escaped the great Hedwig it may seem presumptuous to decide upon as obvious, and yet we cannot hesitate to consider this as a very distinct species from *G. truncatulum*, as Mr. Turner and Mr. Dickson have long ago done. Dillenius indeed discriminated them as varieties, but Mr. Turner thinks Hedwig confounded them entirely, and moreover that all his figures of *truncatulum*, except *f.* 12, belong to the present plant. To this we can scarcely assent, and we have sometimes presumed to doubt Mr. Turner's own figure of *intermedium*. However that may be, we are indebted to him for the specimens here delineated, which agree with our own.

This species is very common on heaths and banks, growing more in tufts than the preceding, which it also exceeds in size, and its colour is rather paler. The leaves are narrower, more incurved and closed together by drying, and the fruit-stalk is longer. The capsule is nearly elliptical, or rather truly ovate, without any dilatation of the mouth, and not by any means top-shaped. Lid scarcely half so long as the capsule, obtusely-pointed, slightly curved.——This moss varies considerably in size. Sometimes it is smaller than *G. obtusum*, *t.* 1407, sometimes larger, but the capsule is never so short and abrupt, the fruitstalk so strong and thick, nor the leaves so straight, or strongly ribbed.

1977
1706

Dicranum
flagellare

June 1 1819 Published by Dr Hornby London

DICRANUM flagellare.

Slender-branched Fork-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* oblong. *Fringe* of 16 flat, cloven teeth, a little inflexed.

SPEC. CHAR. Stem branched, fibrous. Leaves bristle-shaped, dilated at the base, with a pellucid broadish nerve; all curved to one side. Capsule erect, cylindrical, somewhat furrowed.

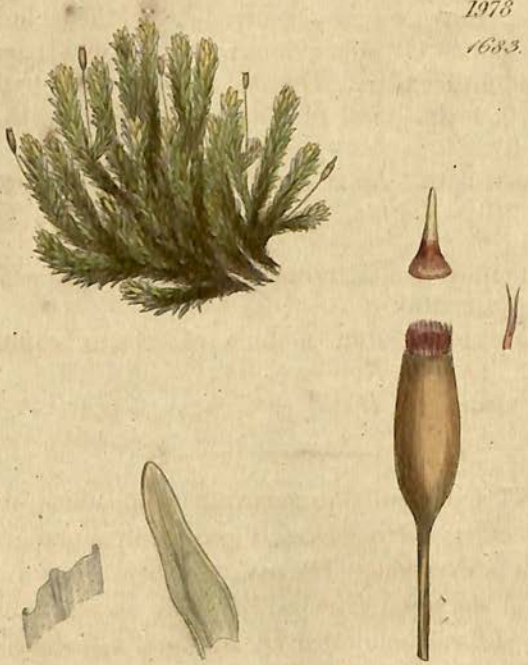
SYN. Dicranum flagellare. *Hedw. Sp. Musc.* 130. *Crypt. v.* 3. 1. *t.* 1. *Sm. Fl. Brit.* 1206. *Turn. Musc. Hib.* 61.

Bryum flagellare. *Dicks. Crypt. fasc.* 3. 6. *With.* 831. *Hull.* 262.

A RARE inhabitant of mountainous rocky heaths. Mr. Dickson found it on Ben Nevis; Mr. Turner gathered our present specimens in fructification in the vicinity of Lough Bray, Ireland, and we have found it, without fructification, but with very fine red fibres on the stem, on Cromford moor near Matlock. It bears fruit at uncertain periods during the summer months.

The stems are perennial, branched, leafy, growing in tufts, from 1 to 3 inches high, clothed with delicate dense fibres, or radicles, which are either of a rusty brown, or almost blood-red. Some branches are occasionally elongated, and furnished rather with scales than leaves. The leaves in general are curved to one side, at least in the young growing plant, and are yellowish, shining, awlshaped, entire, with a very slender, slightly zigzag, point, and a dilated concave base, in which a broadish pellucid rib, that vanishes upwards, is more or less visible. Fruitstalks solitary, erect, of a pale, pellucid brown, twisted when dry, enveloped at the base with some dilated sheathing leaves. Capsule a little incurved, cylindrical, with a fine taper lid of about half its own length; when old furrowed or angular in the upper part. Fringe small, brown.

1978
1683.



Trichostomum aciculare.

London, Published by Jas Sowerby London.

DICRANUM aciculare.

Dark Mountain Fork-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* oblong. *Fringe* of 16 flat, cloven teeth, a little inflexed.

SPEC. CHAR. Stem ascending, branched. Leaves lanceolate, obtuse, somewhat spreading, a little inclining to one side. Capsule cylindrical. Lid awl-shaped.

SYN. Dicranum aciculare. *Hedw. Sp. Musc.* 135. *Crypt. v.* 3. 79. *t.* 33. *Sm. Fl. Brit.* 1212. *Turn. Musc. Hib.* 67.

Bryum aciculare. *Linn. Sp. Pl.* 1583. *Huds.* 479. *Hull.* 261. *Lightf.* 725. *Dicks. H. Sicc. fasc.* 6. 20.

B. montanum hemiheterophyllum, operculis acutis. *Dill. Musc.* 366. *t.* 46. *f.* 25.

B. Hypnoides erectum montanum, erectis capitulis acutis. *Dill. in Raii Syn.* 94.

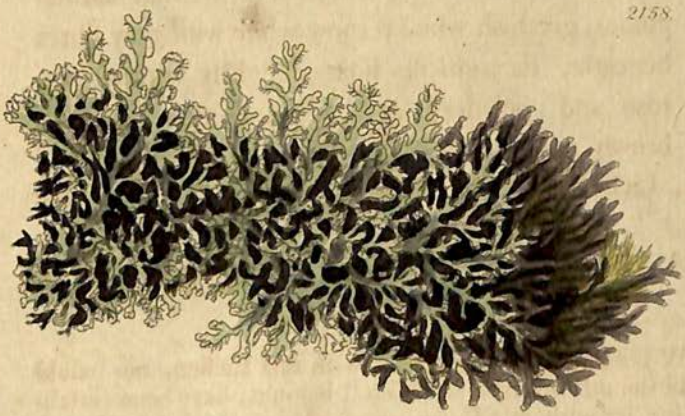
Mnium aciculare. *With.* 798.

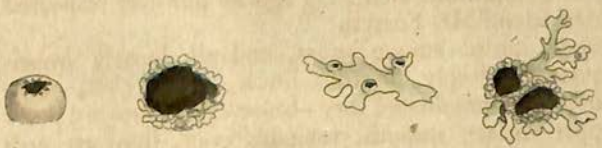
FREQUENT and plentiful in mountainous situations, about rivulets and other watery places, flowering in autumn, and ripening fruit in the spring. The stems are about 2 or 3 inches high, taper at the base, branched and leafy above, forming loose tufts. Leaves imbricated on all sides, but rather inclining one way, opaque, dark green, except the young ones, ovato-lanceolate, obtuse, rather concave, somewhat revolute, entire, with a strong rib, but no terminal point or hair. Fruit-stalks towards the tops of the branches, finely twisted when dry, red-brown, soon becoming black. Capsule perfectly erect, smooth, cylindrical, somewhat elliptical. Lid awlshaped, straight, red at the base. Fringe deep crimson. Veil the shape of the lid, split into several teeth at its base.

When growing in water, the whole moss becomes nearly black, and is Dillenius's *t.* 46. *f.* 26. Bryum hypnoides repens aquaticum, erectis capitulis acutis. *Raii Syn.* 94.

1979

2158.





Parmelia speciosa?

Feb 1 1809 Published by Ja.s Sowerby London

LICHEN speciosus.

Elegant Garland Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Imbricated, radiated, somewhat cartilaginous, greenish white; snow-white with grey fibres beneath; its segments linear, slightly fringed, obtuse and powdery at the extremities. Shields brown, with a white, notched or leafy, border.

SYN. Lichen speciosus. *Wulfen in Jacq. Coll. v. 3.* 119. *t.* 7. *Ach. Prod.* 123.

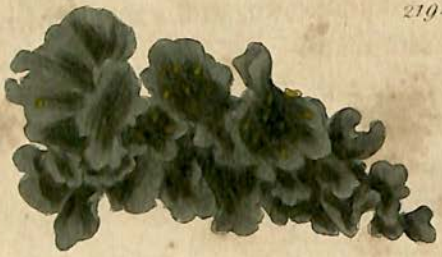
Parmelia speciosa. *Ach. Meth.* 193.

FEW botanists are acquainted with this Lichen, nor could we, in the difficult tribe to which it belongs, have been certain of it but for authentic German specimens, which Mr. Turner has compared with those discovered by himself and Mr. W. J. Hooker at Ballachculish, in North Britain, near Fort William, one of which is drawn in our plate. The fructification however, being extremely rare, and never yet met with in Britain, we have been obliged to supply from a North American specimen, communicated long ago by our ever respected and lamented friend Mr. Forsyth.

The fronds spread among moss, and are loosely imbricated, depressed, deeply cut into linear, many-cleft, radiating segments, whose dilated very obtuse extremities are powdery. Upper surface smooth, tolerably even, light greenish or glaucous, (we have never seen it so green as in Wulfen's figure), blueish-white when dry; under surface of the lobes pure white, with a few grey or black fibres, the more central under part clothed with dense black radicles. The margin is slightly or occasionally fringed. Shields sessile, rather convex, brown; their border of the substance and colour of the frond, inflexed, crenate, at length encircled with an elegant series of leaves like a garland, as in *L. Burgessii*, *t.* 300.

1980

2194.



Collema saturninum

Feb 1 1809 Published by Jas Sowerby London

LICHEN saturninus.

Saturnine Gelatinous Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Leafy, gelatinous, membranous, dark greenish lead-coloured; glaucous and downy beneath; its lobes ascending, rounded, wavy. Shields scattered, reddish-brown, with a thin border.

SYN. Lichen saturninus. *Sm. Tr. of L. Soc. v.* 1. 84. *Dicks. Crypt. fasc.* 2. 21. *t.* 6. *f.* 8. *Ach. Prod.* 132. *With. v.* 4. 60. *Hull.* 298.

L. myochrous. *Ehrh. Crypt.* 286.

Parmelia saturnina. *Ach. Meth.* 221. *Winch Guide v.* 2. 58.

MR. DICKSON discovered this on trunks of trees in Scotland, about the same time that I gathered it in France and Savoy. Mr. Turner favoured us with our present specimens from Killin, North Britain. Ehrhart gathered his at Upsal, where it had escaped the notice of Linnæus, but Professor Acharius remarked and described it by the name of *discolor*, which, though excellent, he has given up to our prior appellation.

This species resembles *flaccidus*, *t.* 1058, and *granulatus*, *t.* 1757, but is of a more lead-coloured black than either, and moreover known by the downy whitish covering of its under side, which is peculiar. Ehrhart's name (mouse-skin Lichen) alluding to this circumstance is very expressive. The shields, rare in Britain, are scattered over the upper surface, a little elevated, of a reddish brown more or less dark, with a thin margin of the substance of the frond.

1981

2201.

Collema tremelloides

Feb 1 1809 Published by Jas Sowerby London

LICHEN tremelloides.

Nostoc Gelatinous Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Leafy, gelatinous, membranous, thin, smooth all over, green; light lead-coloured when dry; lobes ascending, rounded, folded, somewhat notched. Shields scattered, rather elevated, flat, reddish, with a smooth pale border.

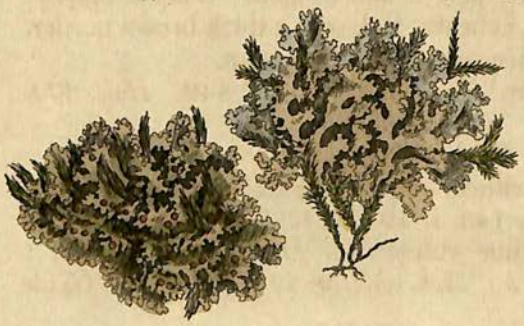
SYN. Lichen tremelloides. *Linn. Suppl.* 450. *Ach. Prod.* 136.
L. cochleatus. *Dicks. Crypt. fasc.* 1. 13. *t.* 2. *f.* 9. *With. v.* 4. 74. *Hull.* 300.
Parmelia tremelloides. *Ach. Meth.* 224.

THIS Lichen I first gathered in 1782 on the east side of Dumbarton castle rock, in a moist spot near the bottom, but without shields. In Devonshire, whence Mr. Slater sent specimens to Mr. Dickson, it is more generally found in fructification. Its fronds grow in creeping patches, and are very thin and tender, ascending, roundly lobed, a little notched here and there, of a dullish green when wet, of a light lead-colour when dry, smooth and naked all over, and of the same hue above and below. Shields scattered over the upper surface, somewhat elevated, with a flat reddish-chesnut disk, and a thick very smooth border, externally like the frond, but its inner edge is pale and buff-coloured.

Thunberg found this at the Cape of Good Hope, and the late Mr. Curtis is said to have gathered it in Yorkshire. Mr. Griffith declares it to be very common about his residence at Garn. We trust we need not dispute with that generally correct botanist on the subject of its difference from *granulatus*, *t.* 1757. The latter becomes almost black by drying.

1982

2202



Collema lacerum

Feb 1 1800 Published by Jas Sowerby London

LICHEN lacer.

Jagged Gelatinous Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Leafy, gelatinous, membranous, extremely thin, nearly upright, blueish brown; lobes dilated, finely jagged and fringed. Shields scattered, minute, concave, red, with a thick brown border.

SYN. Lichen lacerus. *Ach. Prod.* 133.
L. tremelloides. *Huds.* 537, *Lightf.* 842. *Hull.* 300. *Relh.* 464. *Sibth.* 328.
L. Tremella. *With.* 72.
Lichenoides pellucidum, endiviæ foliis tenuibus crispis. *Dill. Musc.* 143. *t.* 19. *f.* 31.
L. saxatile tenue rufescens. *Dill. in Raii Syn.* 77.
Parmelia lacera. *Ach. Meth.* 225. *Winch Guide v.* 2. 58.
Tremella lichenoides. *Linn. Sp. Pl.* 1625.

WE resign with regret Hudson's name for this pretty Lichen, out of deference to Linnæus and Acharius, see last page; but we presume to change the word *lacerus* for the more classical *lacer*. We gathered our specimens long ago, full of shields, in Scotland and Westmoreland. The fronds grow nearly erect, among moss to which they adhere, being extremely thin and delicate, almost pellucid, light brown with a tinge of blue sometimes very vivid, and but little changed by drying. From a slender pale base they dilate and divaricate into a variously lobed and singularly jagged figure, the edges toothed or fringed. The shields, chiefly found in the north, are when present abundant, minute, prominent, with a red concave disk, and thick smooth light-brown border. The young ones resemble little grains like millet, scattered over the surface of the fronds. *Jacq. Coll. v.* 3. *t.* 11. *f.* 1, surely cannot be our plant, for nothing can be less like it!

Scirpus
carinatus.

Pub. 1 May 1806 Published by Sr. Smith Lambeth

SCIRPUS carinatus.

Blunt-edged Club-rush.

TRIANDRIA Monogynia.

GEN. CHAR. *Glumes* chaffy, imbricated every way, all fertile. *Cor.* none. *Seed* 1.

SPEC. CHAR. Stem bluntly triangular upwards, naked; round at the base. Panicle cymose, terminal. Bractea upright, pungent, channelled. Stigmas two.

SYN. Scirpus lacustris γ. *Sm. Fl. Brit.* 52. *Huds.* 19. *With.* 75. *Hull.* 13.

Juncus aquaticus medius, caule carinato. *Dill. in Raii Syn.* 428.

Doody's furrowed Bull-rush. *Pet. Conc. Gram. n.* 199.

GATHERED in the Thames below Battersea bridge. Mr. Edward Forster found it above Westminster bridge, and we are obliged to him for pointing it out as distinct from the Common Bull-rush, *t.* 666, as well as for verifying the above synonyms by Buddle's Herbarium.

In its root, general habit, and aspect, as well as in the round base of its stem, it agrees with *S. lacustris*, *t.* 666, but differs in having the stem bluntly triangular, with rather convex sides, in its upper part, even below the middle, as well as in having a strong, erect, pungent, concave, leaf-like bractea, approaching to the nature of the extended point of the stem of *S. triqueter*, *t.* 1694, to which latter species this is most nearly allied, belonging to the same section of its genus, and having likewise but 2 stigmas, while *lacustris* has 3. *S. triqueter* is acutely triangular to the very base of its stem, and its panicle commonly much smaller and more simple than in the plant before us.

1284

156.

Bromus arvensis.

Feb 1 1800 Published by Jas Sowerby London

BROMUS arvensis.
Taper Field Brome-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves. *Spikelet* oblong, 2-ranked. *Awn* from below the top. *Inner husk* fringed.

SPEC. CHAR. Panicle spreading, drooping, compound. Spikelets lanceolate, acute, about eight-flowered. Florets elliptical, imbricated, smoothish, with two close ribs on each side.

SYN. Bromus arvensis. *Linn. Sp. Pl.* 113. *Fl. Suec. n.* 97. *Sm. Tr. of L. Soc. v.* 4. 289. *Fl. Brit.* 130. *Rel. Rudb.* 15. *Leers t.* 11. *f.* 3. *Ehrh. Calam.* 64.

B. spiculi-tenuata. *Knapp t.* 81.

B. verticillatus. *Cavan. Ic. t.* 590.

Festuca elatior, paniculis minùs sparsis, locustis oblongis strigosis aristatis purpureis splendentibus. *Raii Syn. ed.* 2. 261.

TWO distinct species have been confounded under *Bromus arvensis* in England. This, to which all the above synonyms, as well as the rest in Fl. Brit. after Ray's, and the description, certainly belong, was gathered by Sherard near Southampton, by Mr. W. Backhouse and by Mr. Knapp on the coast of Durham. The latter botanist rightly distinguished it, but was unfortunate in its name, not suspecting it to be the true original *arvensis*.

It is an annual plant, flowering late. The stem is often a yard high, with a very large, branching, many-flowered, drooping, and at length pendulous panicle, whose lowest stalks mostly have bracteas at their base; a great peculiarity. Leaves downy. Sheaths of the lower ones clothed with dense short deflexed hairs. Spikelets slender, lanceolate, shining, variegated with purple, of about 8 florets with upright awns.

We must therefore substitute for the letter-press of *t.* 920 the following character and synonyms.

---

v. 13. *t.* 920.

BROMUS pratensis.
Tumid Field Brome-grass.

SPEC. CHAR. Panicle spreading, compound. Spikelets ovate, turgid, eight- or ten-flowered. Florets elliptical, broad, imbricated, smoothish, with three equidistant ribs on each side.

SYN. Bromus pratensis. *Ehrh. Calam.* 116.

B. arvensis. *Knapp t.* 82. *Dicks. H. Sicc. fasc.* 18. 5.

THIS is the Earsham plant, found also by Mr. Lambert at Boyton, Wiltshire. Our description at *p.* 920 requires correction, as having been made with some reference to the true

Potamogeton lanceolatum.

Feb 1 1809 Published by Jas Sowerby London

POTAMOGETON lanceolatum.
Lanceolate Pondweed.

TETRANDRIA Tetragynia.

GEN. CHAR. *Cal.* none. *Petals* 4. *Style* none. *Seeds* 4.

SPEC. CHAR. Leaves lanceolate, membranous, entire, tapering at the base. Spike ovate, dense, of few flowers.

SYN. Potamogeton ramosum angustifolium. *Bauh. Pin.* 193. *Prod.* 101 ?

THIS *Potamogeton* was communicated by the Rev. H. Davies from the lakes of North Wales, flowering in August. The stems are floating, very slender, round, branched, with creeping perennial roots. Leaves an inch and half or 2 inches long, uniform, lanceolate, bluntish, entire, flat, thin, with 1 rib and several reticulated veins, tapering at the base. They are alternate except where the flowers are situated. Stipulas narrow, lanceolate, acute. Flower-stalks solitary from the bosom of 1 stipula of the opposite leaves, nearly as long as the corresponding leaf, cylindrical, equal. Spike short and ovate, obtuse, dense, uninterrupted, of 8, 10 or 12 small flowers. The colour of the whole plant is either dark green or brownish.

We dare not positively quote any synonym for the above plant, yet we are not without suspicion that those of Bauhin applied to *P. setaceum* may possibly belong to it. Can it be the *setaceum* of Hudson or Linnæus? Their specific character, whatever we may think of the name, is not altogether adverse. No one knows this *setaceum*. Botanists copy its barren definition from each other, but scarcely any appears to have examined it. Being like others in total ignorance, I have merely hazarded a presumption in *Fl. Brit.* that its "leaves are *setaceous*," which word perhaps may only apply to their points, or to the stems, flower-stalks, or stipulas. In this uncertainty we can but offer conjectures to be confirmed or refuted by future inquiries, and in the mean while we have given our plant a name which is free from all ambiguity.

1986

1057.

Hypericum barbatum.

Feb 1 1809 Published by Jas Sowerby London

HYPERICUM barbatum.

Bearded St. John's Wort.

POLYADELPHIA Polyandria.

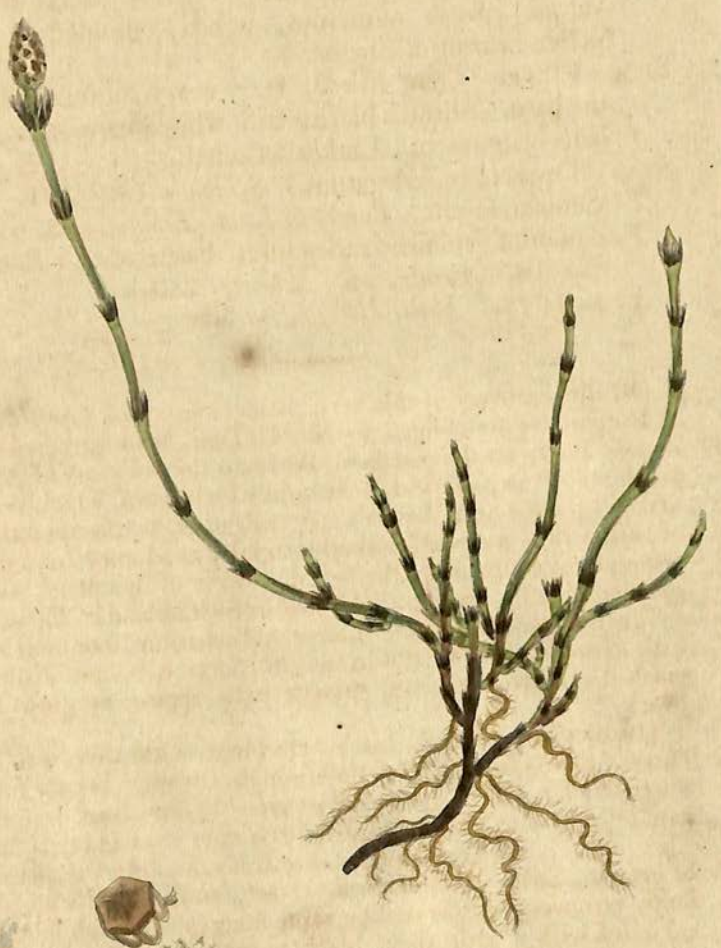
GEN. CHAR. *Cal.* deeply 5-cleft, inferior. *Pet.* 5. *Filaments* numerous, united at the base into 3 or 5 sets. *Caps.* with many seeds.

SPEC. CHAR. Styles three. Calyx and petals fringed and dotted. Leaves ovate, dotted. Stem erect, slightly angular.

SYN. Hypericum barbatum. *Jacq. Austr. v. 3. 33. t. 259. Linn. Hyper. in Am. Acad. v. 8. 323. Willd. Sp. Pl. v. 3. 1462.*

SCARCELY any botanical discovery with which, through the kindness of our friends, we have been enabled to enrich our work, has given us more pleasure than this beautiful *Hypericum*, found by Mr. G. Don, "by the side of a hedge near the wood of Aberdalgy in Strath Earn, Perthshire, but sparingly, flowering in the end of September or October." Some of his specimens have reached us in a sufficiently fresh state to be drawn in the annexed plate. We know not that this plant has been much noticed by authors, but we have specimens from Switzerland and Italy, as well as Austrian ones from Jacquin.

The root is perennial. Stems a foot or more in height, leafy, erect, straight, scarcely branched except at the top; round and purplish at the bottom; rather angular upwards. Leaves sessile, opposite, ovate, bluntish, entire, slightly revolute, smooth, veiny, sprinkled on both sides with dark-purplish glandular dots. Flowers yellow, in a terminal leafy upright forked panicle, with lanceolate bracteas and calyx-leaves, both which are strongly and copiously fringed, in the most elegant manner, with long pale glandular hairs. Petals obovate, minutely fringed or toothed, dotted like the leaves, as well as the calyx and bracteas. Stamens in 3 sets. Anthers orbicular. Styles 3. Jacquin says the capsule is covered with resinous dots.



Equisetum variegatum.

Feb. 1, 1809. Published by Jas. Sowerby, London.

EQUISETUM variegatum.

Variegated Rough Horsetail.

CRYPTOGAMIA Filices.

GEN. CHAR. *Catkin* composed of peltate scales, flowering on their inside. *Partial calyx* of 2 valves. *Seeds* numerous, naked, enfolded by 4 pollen-bearing filaments.

SPEC. CHAR. Stem naked, very rough, branched at the base. Sheaths black, with white, membranous, lanceolate teeth. Catkin terminal.

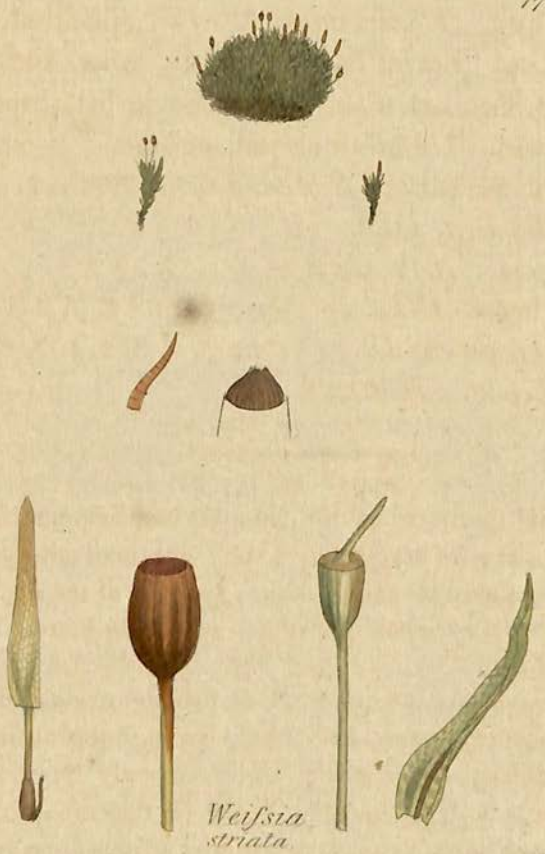
SYN. Equisetum variegatum. *Schleich. Catal.* 21.
E. campanulatum. *Poiret in Lam. Encycl. v. 5.* 613.
E. nudum minus variegatum basileense. *Bauh. Pin.* 16. *Prodr.* 24. *Theatr.* 250.
E. n. 1678. *Hall. Hist. v.* 3. 3.

FOR the discovery of this very distinct species of *Equisetum* in Britain, we are obliged to Mr. G. Don, who gathered it, in July 1807, on the sands of Barry on the sea coast of Angusshire. It is preserved in Jacquin's herbarium, which now makes a part of Sir J. Banks's rich collection, by the apt name of *variegatum*, a name peculiarly eligible, as adopted from the synonym of C. Bauhin, the first discoverer of this plant, and as being that by which it is known in Switzerland. There is a Swedish specimen in the Linnæan herbarium, confounded with *hyemale*, *t.* 915, and in the *Fl. Suec.* it is not distinguished as even a variety, though both appear to grow in Sweden.

The root is perennial, black, creeping, with very woolly fibres. Stems from 4 to 6 inches high, slender, deeply furrowed, rough like those of *E. hyemale*; in our plants decumbent or ascending, and zigzag, in Swiss ones erect and straight. This difference we conceive to arise from the different places of growth, as in *Carex incurva*, *t.* 927, and *juncifolia* of Allioni, erroneously separated by some botanists. Each joint is encircled with a little short black cup-like sheath, crowned with a row of lanceolate white membranous teeth, by which the species is evidently distinguished from *hyemale*. The uppermost sheath is very much larger than the rest. Catkin short, ovate, blacker than in the *hyemale*, and on a more slender stalk.

1988

1733.



Weisia
striata

Pub. 1 1809 Published by Jas. Sowerby London

GRIMMIA striata.

Striated Grimmia.

CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* simple, of 16 teeth, broadest at their base. *Flowers* terminal. *Veil* cylindrical.

SPEC. CHAR. Leaves linear-lanceolate, acute, keeled, entire, incurved when dry. Capsule bell-shaped, furrowed. Lid bristle-shaped, oblique.

SYN. Grimmia striata. *Schrad. Journ.* 1799. *v.* 2. 57. *Sm. Fl. Brit.* 1185.

G. crispata. *Roth. Germ. v.* 3. 145.

Weisia fugax. *Hedw. Sp. Musc.* 64. *t.* 13. *f.* 5—10.

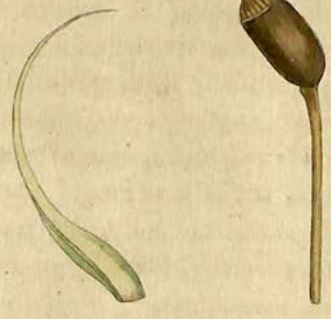
Bryum crispatum. *Dicks. Crypt. fasc.* 3. 3. *t.* 7. *f.* 4. *With.* 833. *Hull.* 264.

SCOTTISH specimens of this rare moss were communicated by Mr. Turner; we have received very fine ones also from Snowdon, gathered by Mr. Griffith. It is one of the smallest of the *Grimmiæ*, annual, growing in tufts, and bearing fruit in May and June.

The stems are about a quarter of an inch high, very slender, brittle, branched, leafy. Leaves light-green, linear or somewhat lanceolate, entire, acute, keeled, strongly reticulated, furnished with a strong mid-rib. When dry they are incurved and crisped. Fruitstalks about a quarter of an inch long, erect, yellowish. Capsule erect, red-brown, small, ovate, at length dilated and bell-shaped, furrowed. Lid as long as the capsule, oblique, awlshaped, slender. Fringe pale-brown or reddish, its teeth generally cohering by their tips, and, as Hedwig observes, very brittle, so that their bases only remain. Veil long, cylindrical, erect, yellowish.

1989

1699.



Dicranum falcatum.

Mar. 1 1809 Published by Jas Sowerby London

DICRANUM falcatum.

Sickle-leaved Fork-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* oblong. *Fringe* of 16 flat, cloven teeth, a little inflexed.

SPEC. CHAR. Stem generally simple. Leaves bristle-shaped, curved one way, single-nerved. Capsule obovate, drooping, with a little swelling beneath it.

SYN. Dicranum falcatum. *Hedw. Sp. Musc.* 150. *t.* 32. *f.* 1—7. *Sm. Fl. Brit.* 1208.

Bryum longifolium. *Dicks. Crypt. fasc.* 3. 7. *With.* 834. *Hull.* 264.

GATHERED last summer by Messrs. Borrer and Hooker on the highest summit of Ben Lawers, Scotland, it being one of the most alpine of our British mosses. Mr. Dickson, who first found it, mentions its station as about rills of water.

This species has much the aspect of *D. heteromallum*, *t.* 1272, but its leaves are even more sickle-shaped and curved to one side. The capsule is essentially distinguished by an oblique, strumose, or gland-like, swelling under its base, and by the form of the lid, which is awlshaped, not of the fine setaceous figure of that species, nor is it so long. The capsule itself is moreover less turgid and not polished. Its form is sometimes nearly ovate, but generally, from the great width of the mouth, rather obovate. Veil obtuse.

The real *Dicranum longifolium*, found in Scotland by Mr. G. Don since the *Flora Britannica* was published, is a very different plant, having no nerve in the leaf, nor any swelling under the capsule, not to mention other distinctive marks.

1990

1677.

Trichostomum patens.

Mar 1 1829 Published by Jas Sowerby London

DICRANUM patens.

Spreading-branched Fork-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* oblong. *Fringe* of 16 flat, cloven teeth, a little inflexed.

SPEC. CHAR. Stem ascending. Lesser branches spreading. Leaves lanceolate, acute, straight, single-ribbed. Capsule nearly ovate. Fruitstalk twisting.

SYN. Dicranum patens. *Sm. Fl. Brit.* 1213.
Bryum patens. *Dichs. Crypt. fasc.* 2. 6. *t.* 4. *f.* 8.

GATHERED by Messrs. Hooker and Borrer on Ben Nevis, where it grows on stones in the alpine rivulets. Mr. G. Don finds it plentifully in the shires of Inverness and Angus, and Mr. Turner observed it on Snowdon in Wales. Foreign botanists seem not acquainted with this species. It is perennial, bearing fruit rather early in summer.

The stems ascend in a lax spreading manner, and their black wiry bases are often stripped of leaves; above they are branched, leafy, the shorter branches spreading sometimes horizontally. Leaves almost upright or but little spreading, linear-lanceolate for the most part, acute, but pointless, keeled, single-ribbed, entire, when dry slightly revolute; their colour is a dark blackish hue, except the young ones, which are of a light and pleasant green, and some of the latter are often almost ovate at their base. Fruitstalks lateral, short, in process of time becoming curved or twisted. Capsule erect, ovate or elliptical. Mr. J. D. Sowerby has observed it to be marked with 8 slightly prominent ribs. The fringe is crimson. Lid conical, straight. Veil toothed at the base.

Mar 1 1830 Pub... by Jas Sowerby London

TRICHOSTOMUM ericoides.

Heath-like Hoary Fringe-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* oblong. *Fringe* of 32 capillary, straightish teeth, approximated or united in pairs.

SPEC. CHAR. Leaves ovato-lanceolate, recurved, keeled and deeply channelled, with a pellucid finely serrated point. Capsule ovate. Stem erect, with very short branches.

SYN. Trichostomum ericoides. *Schrad. Spicil.* 62. *Sm. Fl. Brit.* 1241. *Turn. Musc. Hib.* 38.

T. elongatum. *Ehrh. Crypt.* 233.

Bryum ericoides. *Dicks. Crypt. fasc.* 4. 14.

B. hypnoides. *Linn. Sp. Pl.* 1585, γ. *Huds.* 480, ε. *With.* 820, *var.* 4. *Hull.* 259, *var.* 4.

B. hypnoides, ericæ facie, capsulis barbatis, alpinum. *Dill. Musc.* 371. *t.* 47. *f.* 31.

B. hypnoides, capitulis plurimis erectis, non lanuginosum. *Dill. in Raii Syn.* 478.

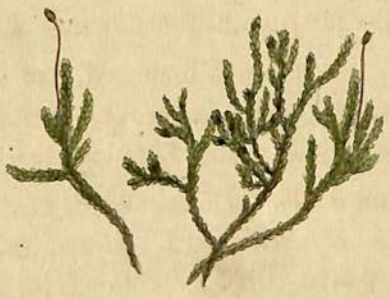
RICHARDSON communicated this moss to Dillenius from the higher part of Snowdon, and few British botanists besides have ever seen it. Messrs. Borrer and Hooker met with our specimens last summer on the sandy shores of the Tay near Dunkeld.

The stems are perennial, 2 or 3 inches high, growing upright in loose tufts, subdivided, furnished with abundance of little, short, alternate, spreading or recurved, branches. The stem and branches are clothed with lanceolate, or ovato-lanceolate, spreading and recurved leaves, entire at their edges, each marked with a deep channel and keeled, without a mid-rib, and terminating in a white, transparent, hair-like, finely serrated point. Fruitstalks terminating the last-year's shoots, erect, an inch or more in length, dark purple, twisted. Capsule erect, ovate inclining to cylindrical, smooth, brown. Lid awlshaped, straight. Fringe purple, straight, nearly as long as the capsule. Veil toothed.

We find the leaves of this species, even in Ehrhart's specimen, have no true nerve, and therefore that mark of distinction fails us with respect to *T. canescens.*

1992

1525.



Hypnum molle.

Mar. 1. 1809. Published by Jas. Sowerby London

HYPNUM molle.

Soft Water Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem much-branched, lax and slender. Leaves ovate, entire, concave, ribless, somewhat pointed. Capsule ovate. Lid hemispherical, pointed.

SYN. Hypnum molle. *Dicks. Crypt. fasc.* 2. 11. *t.* 5. *f.* 8. *Sm. Fl. Brit.* 1312. *Hedw. Sp. Musc.* 273. *t.* 70. *f.* 7—10. *With.* 862. *Hull.* 273.

FOR this moss also, as well as those in our three preceding plates, we are indebted to Mr. Hooker and Mr. Borrer, who gathered it on Ben Nevis, in the alpine rivulets of that mountain, last summer.

The stems are perennial, much branched, floating, forming loose soft tufts; the branches variously scattered, leafy and blunt. Leaves loosely imbricated on all sides, a little spreading, so as to give the plant a soft elastic feeling to the touch; their colour is a light yellowish green; their form ovate, broad, concave, with a flattish short point, but no terminal bristle. There is no mid-rib, but only 2 or 3 plaits at the base of each leaf, and the margin is either quite entire, or appearing very slightly toothed under a high magnifier. Fruit-stalks rare, scarcely an inch long, reddish, incurved. Leaves of the sheaths lanceolate, acute. Capsule inclining, roundish-ovate, smooth, of a rusty brown. Lid, hitherto unobserved, short, hemispherical rather than conical, with a little blunt point.

1993

2077

Lecidea erythella

May 1 1809 Published by Jas Sowerby London

LICHEN erythrellus.

Orange Stone Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust lemon-coloured, thin, dispersed, in minute, angular, smooth fragments. Shields sessile, deep orange, with a lighter border; at length becoming nearly globose, and the border obliterated.

SYN. Lichen erythrellus. *Ach. Prod.* 43.
Parmelia erythrella. *Ach. Meth.* 174.

DETECTED by Mr. Hooker and Mr. Borrer on walls in Glen Orchy about Loch Tay, and elsewhere in the Highlands last summer. Their specimens, drawn in our plate, agree precisely with the authentic one sent by Dr. Acharius.

This is a minute species, but very distinct. Its original describer suggests its affinity to *L. salicinus*, *t.* 1305, but they surely cannot be confounded. The crust of this before us consists of very minute, dispersed, angular, smooth, lemon-coloured fragments, inseparable from the hard stone on which it grows, and quite unlike in nature from the continued, somewhat orbicular, crust of *t.* 1305. The diminutive shields, larger however than the portions of the crust, are scattered, sessile, of a deep reddish orange, with a thick, smooth, paler border. In process of time the disk is said by Dr. Acharius to become so convex that the border disappears. We have not seen the shields in this state.

1994
2232.

Cetraria nivalis

Mar. 1 1803 Published by Jas. Sowerby London

LICHEN nivalis.

Snow Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Leafy, membranous, ascending, laciniated, pitted, of a sulphureous white, yellow at the base; its segments flattish, repeatedly divided, divaricated, notched, warty. Shields in front towards the margin, flesh-coloured, with a crenate border.

SYN. Lichen nivalis. *Linn. Sp. Pl.* 1612. *Fl. Lapp. ed.* 2. 355. *t.* 11. *f.* 1. *Ach. Prod.* 171. *Dicks. Crypt. fasc.* 3. 17. *With. v.* 4. 60. *Hull.* 298. *Villars Dauph. v.* 3. 955. *var.* 1. *t.* 55. *Fl. Dan. t.* 227.
Lichenoides lacunosum candidum glabrum, endiviæ crispæ facie. *Dill. Musc.* 162. *t.* 21. *f.* 56 A.
Cetraria nivalis. *Ach. Meth.* 294.

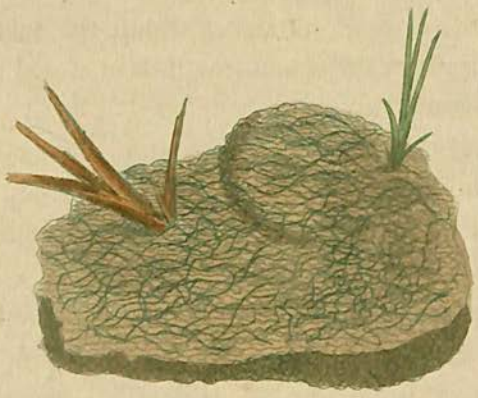
THE specimen in our plate was brought from the Highlands of Scotland by Mr. Turner and Mr. Hooker in 1807, but our first knowledge of this Lichen as a native of that country was derived from Dr. R. Townson in 1790, as mentioned in the 2d edition of *Linn. Fl. Lapp.* It always prefers the highest or coldest, dry and rocky, places.

The fronds are of the palest sulphur-colour, almost white, tufted, entangled amongst other Lichens or mosses, membranous, brittle when dry, repeatedly cut into narrow, divaricated, notched segments, all over pitted or cellular, not unaptly resembling in form and colour small leaves of curled endive. Little blackish warts occur here and there on the edges, but what share they have in the fructification is unknown.

The real shields of this Lichen are one of our chief *desiderata*. We have in vain searched the herbarium of Linnæus for his Dalecarlian specimen, figured in *Fl. Lapp. t.* 11. *f.* 1; but as his description agrees with that of Villars, we have profited of both in our above specific character. We hope some future traveller in Scotland may find our *L. cucullatus*, *Tr. of L. Soc. v.* 1. 84. *t.* 4. *f.* 7, whose shields grow on the back of the leaf, under hoods, and whose fronds are channelled, scarcely pitted or wrinkled.

1995 •

2523.



Oscillatoria chthonoplastes

Mar 1 1809 Published by Jas Sowerby London

CONFERVA vaginata.
Sheathed Conferva.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced within the substance of the capillary or jointed frond, or in closed tubercles united with it.

SPEC. CHAR. Glaucous-green, branched, cylindrical, obscurely jointed. Joints as broad as long. Several branches embraced in one sheathing membrane.

SYN. Conferva vaginata. *Dillw. Conf. t.* 99.

Oscillatoria vaginata. *Vaucher Conf.* 200. *t.* 15. *f.* 13.

THIS it seems is not an uncommon production. We have seen it on the earth of garden pots, and running up their insides, at Norwich, in the damp months of winter, but could never see its structure to our satisfaction. Mr. Sowerby has observed it at Mead Place, Lambeth, and has received it from several friends. The specimens in the annexed plate were found by Mr. Borrer, forming patches several inches wide, on footpaths at Hurst Perepoint, Sussex, in December last.

The fronds grow close to the ground, or garden pot, crossing each other, branching, and forming a sort of irregular network of a more or less glaucous green hue, sometimes nearly black, slippery and moist to the touch, soon withering when gathered, but as soon reviving by the accession of moisture. The filaments when examined separately are very pale and pellucid, with scarcely perceptible but very regular joints, about as broad as long. Several filaments are embraced in one common membranous very delicate tubular sheath, which is peculiar. Here and there are found lateral balls, resembling the fruit of some *Conferæ*, but containing coiled filaments.

1996
2334.

Trentepholia chalybæa?

Mar 1 1830 Published by Jas Sowerby London

CONFERVA corymbifera.

Corymbiferous Conferva.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced within the substance of the capillary or jointed frond, or in closed tubercles united with it.

SPEC. CHAR. Dull blackish green, much and alternately branched. Joints five times as long as broad. Fruit-branches corymbose, lateral. Capsules terminal, globose.

FOUND by Mr. William Backhouse in a sluice of fresh water near Darlington last September. Our most learned friends in this tribe support us in the opinion that it is a hitherto nondescript Conferva, very remarkable for its mode of inflorescence, at least among the fresh-water kinds.

The fronds are tufted, half an inch or more in height, almost black when many together, but of a dull palish green when separately examined. They are extremely slender, much and repeatedly branched in an alternate order, the lateral branches very short, often cloven. The joints are equal, 5 or 6 times as long as broad. About the lower or middle part of the frond grow several lateral, alternate, repeatedly divided, level-topped or corymbose branches, whose joints are short and tumid, and whose ultimate divisions bear solitary, globose bodies, much thicker than the joints, which bodies we presume from analogy to be capsules of seeds.

ORNITHOGALUM nutans.

Drooping Star of Bethlehem.

HEXANDRIA Monogynia.

GEN. CHAR. *Cor.* of 6 petals, permanent, their upper part spreading. *Filaments* dilated at the base. *Capsule* superior, of 3 cells. *Seeds* roundish. *Calyx* none.

SPEC. CHAR. Flowers pendulous toward one side. Filaments dilated, cohering, bell-shaped; three of them longer and cloven.

SYN. Ornithogalum nutans. *Linn. Sp. Pl.* 441. *Willd. Sp. Pl. v.* 2. 125. *Ait. Hort. Kew. v.* 1. 443. *Jacq. Austr. t.* 301. *Fl. Dan. t.* 912. *Curt. Mag. t.* 269. *Roth. Germ. v.* 1. 151.

O. n. 1216. *Hall. Helvet. v.* 2. 103.

O. neapolitanum. *Clus. Exot. append.* 2. 8, 9.

CLUSIUS received this plant from his friend Imperati of Naples, and it has thence been judged a native of that country. Others have reported it to be of Cretan origin, but Dr. Sibthorp did not observe it in Crete, nor any where else in his Grecian tour. Its original place of growth is therefore, as Mr. Curtis suggests, doubtful; but as Haller, Jacquin, Roth, and the editors of the *Flora Danica* admit it into their works, on the ground of its being at least naturalized, if not wild, about towns, orchards, &c., in the countries they described, we adopt it likewise, our specimen having been sent by the Rev. G. R. Leathes from high fields near Bury, where this *Ornithogalum* grows in great profusion, flowering early in May.

Bulb ovate, commonly deep in the ground. Leaves all radical, pale and somewhat glaucous, linear, channelled, acute. Stalk solitary, rather taller than the leaves, cylindrical, erect. Cluster simple, a little drooping, composed of 7 or 8 large and not inelegant greenish silvery-white flowers, which lean towards one side, and as they fade become quite pendulous. The permanent petals close over the germen, which becomes a roundish membranous capsule. The stamens are very broad, 3 of them longer than the rest, and two-lobed at the top beyond their anthers. The bracteas are lanceolate, acute, longer than the partial stalks, but shorter than the flowers.

Rumex crispus

Mar 1 1809 Published by Jas Sowerby London

RUMEX crispus.

Curled Dock.

HEXANDRIA Trigynia.

GEN. CHAR. *Cal.* 3-leaved. *Petals* 3, closed. *Seed* 1, superior, naked, triangular. *Stigmas* many-cleft.

SPEC. CHAR. Valves ovate, entire, all grained. Leaves lanceolate, undulated, acute.

SYN. Rumex crispus. *Linn. Sp. Pl.* 476. *Sm. Fl. Brit.* 391. *Huds.* 153. *With.* 353. *Hull.* 77. *Relh.* 142. *Sibth.* 117. *Abbot.* 81. *Curt. Lond. fasc.* 2. *t.* 20.

Lapathum folio acuto crispo. *Raii Syn.* 141.

VERY common in waste ground, by road sides, and in meadows and fields, flowering in June or July, and accidentally throughout the summer.

The root is perennial, tap-shaped, yellowish. Stem 2 or 3 feet high, angular, furrowed, nearly smooth to the touch, leafy, branched. Leaves stalked, lanceolate, acute, strongly waved, crisped and somewhat crenate, of a lightish green; the upper ones narrower and nearly sessile. The little bundles of flowers are not far distant from each other, but form longish, nearly upright clusters, leafy in their lower part. Valves of the fruit large, ovate inclining to heartshaped, reticulated with veins, undivided, waved not toothed, each bearing a conspicuous, ovate, prominent, reddish, central grain. Seed larger than in *R. sanguineus*, *t.* 1533.

The curled leaves, and large entire calyx-valves, readily distinguish this species, which is a very troublesome and unprofitable weed.

1999

524.

Rumex obtusifolius.

April 1 1809 Published by Jas Sowerby London

RUMEX obtusifolius.

Broad-leaved Dock.

HEXANDRIA Trigynia.

GEN. CHAR. *Cal.* 3-leaved. *Petals* 3, closed. *Seed* 1, superior, naked, triangular. *Stigmas* many-cleft.

SPEC. CHAR. Valves toothed, one principally grained. Radical leaves heartshaped, obtuse. Stem roughish.

SYN. Rumex obtusifolius. *Linn. Sp. Pl.* 478. *Sm. Fl. Brit.* 392. *Huds.* 155. *With.* 357. *Hull.* 78. *Relh.* 142. *Sibth.* 118. *Abbot.* 81. *Curt. Lond. fasc.* 3. *t.* 22.

Lapathum vulgare, folio obtuso. *Raii Syn.* 141.

NOT less common than *R. crispus* figured in our last plate, and, as Mr. Curtis remarks, even more troublesome as a weed, on account of its much larger leaves. It flowers in July and August, and is perennial.

Root tap-shaped, blackish, yellow within, bearing numerous stems 2 or 3 feet high, which are upright, branched, leafy, round, furrowed, rough chiefly in their upper part. Radical leaves very large, heartshaped, more or less blunt, on long stalks; stem leaves much narrower and more pointed, on shorter stalks; all in some degree crenate and crisped, though less than in *R. crispus*. Clusters with few leaves, often without any. Valves of the fruit rather large, oblong-heartshaped, veiny, entire at the upper part, but having 3 sharp prominent teeth at each side near the base. An oblong grain is chiefly to be observed on the outermost valve, which is smaller in proportion to the valve than in some other kinds.

Mr. Curtis recommends frequent mowing as a sure means of destroying this weed. Farmers find their account in hiring persons to eradicate docks, under which name many tap-rooted plants are included besides real species of *Rumex*.

2000

549.

April 1 1800 Published by Jas Sowerby London

EPILOBIUM alsinifolium.

Chickweed-leaved Willow-herb.

OCTANDRIA Monogynia.

GEN. CHAR. *Cal.* in 4 segments. *Petals* 4. *Caps.* oblong, inferior. *Seeds* feathered.

SPEC. CHAR. Leaves on footstalks, ovate, acute, toothed. Stigma undivided. Root creeping, matted. Stems decumbent, obtusely quadrangular.

SYN. Epilobium alsinifolium. *Villars Dauph. v.* 3. 511.
E. n. 361. *Winch Guide, v.* 1. 36. *v.* 2. *pref.* 4.
E. montanum δ. *Willd. Sp. Pl. v.* 2. 316?
Lysimachia siliquosa glabra minor latifolia. *Raii Syn.* 311. *Hist. v.* 1. 862.
L. siliquosa nana, prunellæ foliis acutis. *Bocc. Mus.* 161. *t.* 108.

WE dedicate with pleasure our 2000th plate, a number which no work of this kind has reached before, to the illustration of a plant whose botanical history has been hitherto peculiarly obscure. This *Epilobium* was gathered on the Cheviot hills by Mr. Winch, who rightly judges it to be the plant of Ray, always mistaken for *alpinum*, which last seems to grow only in Scotland. We have however the present species from the Highlands also, by favour of Mr. G. Don and the late Mr. J. Mackay. By accidentally falling on a specimen from Villars himself, in Mr. Davall's herbarium, we have ascertained and adopted his name, and have verified his quotation of Ray. Finally, we determine Boccone's synonym, which Haller judiciously suspected could not belong to his own *n.* 999, the real *alpinum* of Linnæus and *Fl. Brit.*

E. alsinifolium is so called with a reference to the larger kinds of Chickweed, which its leaves resemble. *Alsine* of Linnæus will not remain as a genus at all.

One great mark of this species is that its perennial root creeps widely, forming broad matted tufts, leafy throughout the winter, in which it totally differs from *E. roseum*, *t.* 693, the species otherwise most related to it. The leaves however are sharper than in that, of a darker hue, and with shorter stalks. Stems numerous, decumbent, the flowering part ascending, roundish but marked with 4 angles. The flowers come forth in June and July, with veined cloven petals, and an undivided stigma. Germen downy, with minute recurved hairs. Fruit very long. It is, like *E. alpinum*, an herb that varies much in luxuriance, and grows by the turfy boggy margins of mountain rills.

2001

550.

Epilobium alpinum.

April 1 1809 Published by Jas Sowerby London

EPILOBIUM alpinum.

Alpine Willow-herb.

OCTANDRIA Monogynia.

GEN. CHAR. *Cal.* in 4 segments. *Petals* 4. *Caps.* oblong, inferior. *Seeds* feathered.

SPEC. CHAR. Leaves on short footstalks, elliptic-lanceolate, obtuse, mostly entire. Stem decumbent. Flowers few.

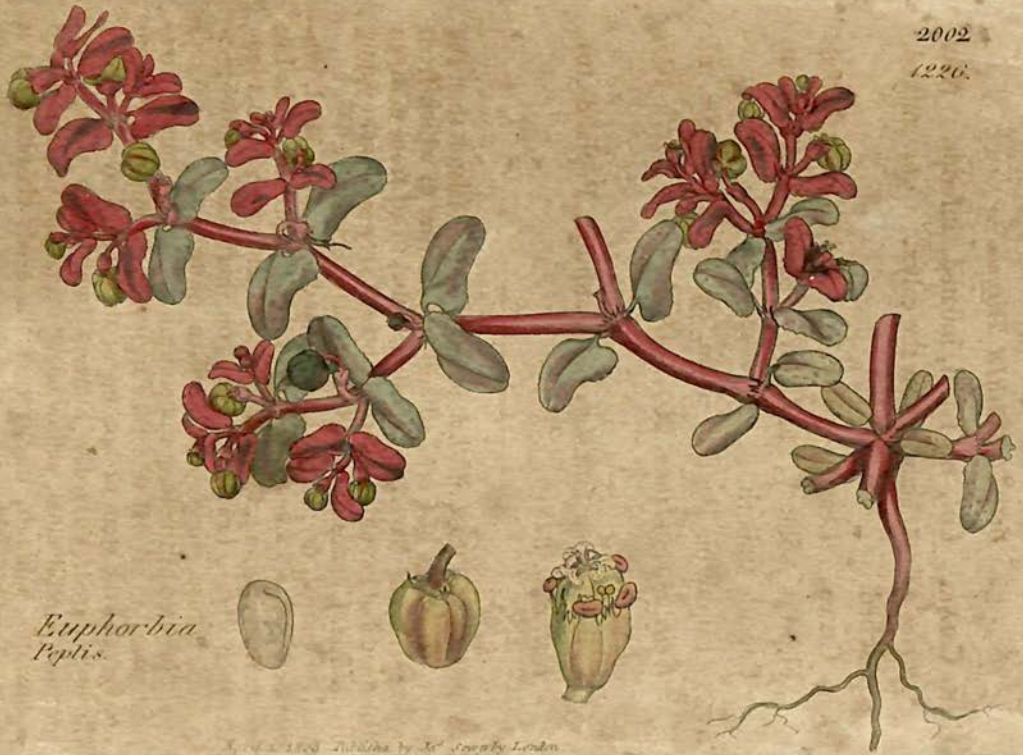
SYN. Epilobium alpinum. *Linn. Sp. Pl.* 495. *Sm. Fl. Brit.* 413. *Huds.* 163. *With.* 368. *Hull.* 83. *Lightf.* 199. *t.* 10. *f.* 1. *Dicks. H. Sicc. fasc.* 2. 14. *Fl. Dan. t.* 332. *Villars Dauph. v.* 3. 510. E. n. 999. *Hall. Hist. v.* 1. 426.

THIS we have formerly gathered on Ben Lomond, by the sides of rivulets about two thirds of the way up. From wild Scottish specimens, assisted by fresh ones from the garden of the Comtesse de Vandes, where this and many other rare plants are cultivated in great perfection, our figure was completed. The plant is perennial, flowering in June or July, and ripening seed in August.

Roots creeping, throwing up a few scattered leafy shoots, and still fewer weak ascending simple leafy stems, which are slightly angular and sometimes downy. Leaves on short stalks, elliptical, obtuse, inclining to lanceolate, entire, or with a few slight scattered teeth; the floral ones only alternate. Flowers generally 2, rarely 1 or 3, on simple stalks from the bosoms of the upper leaves. Germen long, downy. Petals rose-coloured, cloven. Stigma clubshaped, but we think undivided, or at least but slightly notched.

2002

1226.



Euphorbia
Peplis.

Published by Sowerby London

EUPHORBIA Peplis.

Purple Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Cal.* of 1 leaf, inflated, inferior. *Nectaries* 4 or 5, standing on the calyx. *Caps.* stalked, 3-lobed.

SPEC. CHAR. Leaves nearly entire, half-heartshaped. Flowers solitary, axillary. Stems procumbent. Capsule smooth.

SYN. Euphorbia Peplis. *Linn. Sp. Pl.* 652. *Sm. Fl. Brit.* 514. *Huds.* 207. *With.* 446. *Hull.* 105. *ed.* 2. 140.

Tithymalus maritimus supinus annuus, Peplis dictus. *Raii Syn.* 313.

A PRODUCTION of no other parts of this island than the sandy sea shores of Cornwall and Devonshire, of which fresh wild specimens have been communicated to us from between Tor quay and Paygton, Tor bay, by our very intelligent young friend Mr. Charles Sinclair Cullen, last September.

Root annual, deeply fixed in the sand. Stems several, procumbent, widely spreading, repeatedly branched and forked in an alternate manner, leafy; roundish when fresh; quadrangular when dry. Leaves opposite, on short stalks, half-heart-shaped, obtuse, single-ribbed, often quite entire, sometimes finely toothed at the base and summit. Stipulas small, intrafoliaceous, in several setaceous segments. Flowerstalks from the forks of the stem or bosoms of the upper leaves, solitary, single-flowered, curved. Flowers small, with four entire, roundish, umbilicated, yellow or red nectaries. Capsule turned downwards, smooth, discharging the seeds elastically as it dries. Seeds smooth.

The whole herb is very milky, smooth, either of a livid glaucous green thickly dotted with crimson, or more frequently the stems and stalks are entirely of the latter colour, the flowers and fruit being more faintly stained with it. The less luxuriant plants are, as Mr. Cullen observes, most highly coloured.

2003
796.

Ranunculus hederaceus.

April 1 1809 Published by Jas Sowerby London

RANUNCULUS hederaceus.

Ivy Crowfoot.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, with a honey-bearing pore on the inside of the claw of each. *Seeds* naked.

SPEC. CHAR. Leaves roundish-kidneyshaped, with three or five lobes, entire, smooth. Stem creeping.

SYN. Ranunculus hederaceus. *Linn. Sp. Pl.* 781. *Sm. Fl. Brit.* 595. *Huds.* 243. *With.* 507. *Hull.* 122. *Relh.* 217. *Sibth.* 175. *Abbot.* 123. *Curt. Lond. fasc.* 4. *t.* 39.

R. aquatilis hederaceus albus. *Raii Syn.* 249.

SHALLOW rivulets, and inundated places, often produce this little plant, yet it is not one most generally noticed, either in this country or other parts of Europe. We find it in Hyde park and Tothill fields, flowering from June to September.

The roots are perennial. The floating, branched, spreading stems throw out many fibrous radicles as they go, and bear numerous, opposite or alternate, long-stalked leaves, of a roundish kidney-shape, with 3 or 5 shallow lobes, and an entire edge. The whole herb is juicy, smooth and shining. Disk of the leaves sometimes marked with a brown spot. Flower-stalks simple, solitary, either axillary, or opposite to the leaf-stalks. Petals small, oblong, white, with yellow claws. Stamens from 5 to 10, scarcely more. Seeds numerous, roundish, rugged. This is next akin to *R. aquatilis*, *t.* 101, but very distinct from all the varieties of that species.

Dicranum squarrosum.

Mar 1 1803 Published by Jas Sowerby London

DICRANUM squarrosum.

Drooping-leaved Fork-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* oblong. *Fringe* of 16 flat, cloven teeth, a little inflexed.

SPEC. CHAR. Stem branched, level-topped. Leaves lanceolate, recurved, spreading every way. Capsule ovate, inclining, smooth.

SYN. Dicranum squarrosum. *Schrad. Journ. for* 1802, *fasc.* 1. 68. *Sm. Fl. Brit.* 1225. *Turn. Musc. Hib.* 69.

Bryum palustrre. *Dicks. Crypt. fasc.* 4. 11.

B. pellucidum *β. Linn. Sp. Pl.* 1583.

B. erectis capitulis brevibus, foliis reflexis. *Dill. Musc.* 365. *t.* 46. *f.* 24. *Raii Syn.* 95.

A NATIVE of mountain bogs. Mr. Hooker and Mr. Borrer inform us that the luxuriant barren variety is common in the highlands of Scotland, but that the more dwarf plants which bear fructification are rare. Some of these, gathered by our abovementioned friends on rocks by the side of Great Loch Broom, Ross-shire, are here exhibited along with the former. We first received this species from Dr. Buchanan, who gathered it at Leney near Stirling in 1784, when, the Hedwigian principles being unknown amongst us, it was suspected to belong to *Hypnum squarrosum.*

The stems are either simple or branched, in perennial level-topped tufts; such as form fructification are an inch or two in height, while others are 3 or 4 times as tall. They are all leafy, and the lower parts bear many rusty-coloured fibres or radicles. The leaves are squarrose, or project in every direction, lanceolate, recurved, entire, acute, single-ribbed, pellucid, light green, turning rusty or black as in other water mosses. Fruitstalks about an inch high, crimson, rather thick. Capsule inclining, and at length curved, ovate, smooth, dark or reddish brown. Fringe deep purple. Lid red, conical, sometimes almost as long as the capsule, and slightly curved.

2005

1684.

Trichostomum fasciculare.

April 1 1809 Published by Jas Sowerby London

TRICHOSTOMUM fasciculare.

Beardless Hoary Fringe-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* oblong. *Fringe* of 32 capillary, straightish teeth, approximated or united in pairs.

SPEC. CHAR. Leaves lanceolate, pointed, revolute, keeled. Capsule ovate-oblong. Stem branched, diffuse.

SYN. Trichostomum fasciculare. *Schrad. Spicil.* 61. *Sm. Fl. Brit.* 1243. *Hedw. Sp. Musc.* 110. *Turn. Musc. Hib.* 39. *Winch Guide, v.* 1. 104.

Bryum fasciculare. *Hoffm. Germ. v.* 2. 42.

B. hypnoides β. *Linn. Sp. Pl.* 1585. *Huds.* 480. *With.* 820, *var.* 7. *Hull.* 259.

B. lutescens. *Dicks. Crypt. fasc.* 4. 14.

B. hypnoides, hirsutie virescens, fasciculare alpinum. *Dill. Musc.* 370. *t.* 47. *f.* 28.

NOT uncommon on dry rocky mountains in the north. The Rev. Mr. Dalton and Mr. Hooker communicated it from Ingleborough, Yorkshire. We have the same also from Wales, Scotland and Ireland. It is perennial, bearing abundance of fruit in the spring, and the empty capsules remain long on the stalks.

The stems spread widely, forming elastic entangled tufts, and are leafy, furnished with numerous short branches. The lower parts and old leaves are black. The young leaves are of a light yellowish green, imbricated, straight, lanceolate, entire, revolute, single-ribbed, keeled, more or less pointed, but not tipped with a pellucid or white appendage. Fruitstalks copious, solitary, nearly terminal, half an inch or more in length, twisted and bent, brown. Capsule ovate or somewhat cylindrical, erect, brown, very smooth. Lid awlshaped, very taper-pointed, straight, yellowish, as long as the capsule. Fringe about a third as long, reddish.

2006

1536.

Hypnum pulchellum.

April 1 1809 Published by Jas Sowerby London

HYPNUM pulchellum.

Beautiful Tufted Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stems erect, tufted. Branches cylindrical, simple. Leaves ovato-lanceolate, taper-pointed, ribless, somewhat inclining to one side. Capsule upright. Lid conical.

SYN. Hypnum pulchellum. *Dicks. Crypt. fasc.* 2. 13. *t.* 5. *f.* 6. *H. Sicc. fasc.* 9. 22. *Sm. Fl. Brit.* 1277. *With.* 847. *Hull.* 269. *Turn. Musc. Hib.* 136. Leskea pulchella. *Hedw. Sp. Musc.* 220. *t.* 55. *f.* 7—12.

GATHERED last summer by Mr. Borrer and Mr. Hooker in the Den of Rechip, Perthshire, already celebrated in botanic story for producing *Convallaria verticillata, t.* 128.

This is truly an elegant moss, consisting of dense tufts, an inch and half high, conspicuous for their light and splendid green colour. The branches are numerous, alternate, upright, simple and cylindrical. Leaves imbricated, rather inclining to one side, shining, ovato-lanceolate, concave, entire, taper-pointed, finely reticulated, without any rib, though occasionally marked with a plait. Sheaths solitary, from the base of the stem or branches, small, consisting of a few pointed, keeled, pellucid scales. Fruitstalks rising much above the stems, capillary, red, especially in the lower part, bulbous at the base. Capsule nearly erect, oblong-pitcher-shaped, pale brown, finely reticulated, insomuch that should the veil be found to countenance the measure, I should be glad to remove this species to *Hookeria*, where it has perhaps as good a right to be placed as my *H. uncinata*, Tr. of L. Soc. *v.* 281. *t.* 23. *f.* 4. The lid is conical, much shorter than the capsule. Outer fringe yellowish; twice as long, white, with uniform teeth. Veil unknown.

2007
1148.

Bryum capillare.

April 1 1809 Published by Jas Sowerby London

BRYUM capillare.

Greater Matted Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base; *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem branched from the base, tufted. Leaves obovate, hair-pointed, twisted when dry. Capsule club shaped, pendulous.

SYN. Bryum capillare. *Linn. Sp. Pl.* 1586. *Sm. Fl. Brit.* 1357. *Hedw. Sp. Musc.* 182. *Huds.* 488. *Hull.* 255. *Lightf.* 737. *Sibth.* 290. *Turn. Musc. Hib.* 120.

B. foliis latiusculis congestis, capsulis longis nutantibus. *Dill. Musc.* 398. *t.* 50. *f.* 67.

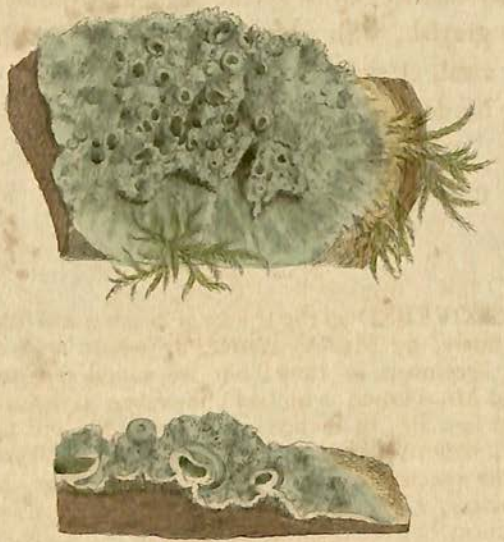
B. capitulis reflexis, foliolis latiusculis congestis. *Raii Syn.* 100.

Mnium capillare. *Linn. Fl. Suec.* 385. *With.* 805. *Relh.* 420. *Abbot.* 234.

FOUND in woods and on heathy banks, not, like *B. cæspititium*, *t.* 1904, on walls or roofs, nor about much-frequented places in general. It bears fruit about the same time as that species, or rather later, and agrees with it in general appearance, differing chiefly in being always much larger. The branches when full-grown are near an inch long. Leaves obovate, concave, keeled, thickened at the edge, and sometimes slightly serrated at the very summit, each tipped with a long hair. When dry they are twisted together, and form a sort of spiral star at the top of each branch. Fruit-stalks an inch and half long, firm, deep crimson. Capsule pendulous, twice as large as *B. cæspititium*, and more elongated, being when old so taper at the base as to become club-shaped rather than obovate. Lid of a shining red brown, hemispherical with a little point. Outer fringe orange-coloured, with long-pointed teeth.

2008

1994



Variolaria globulifera

May 1 1797. Published by Jas. Sowerby London

LICHEN globuliferus.

Vesicle-shielded Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust spreading, faintly bordered, rugged, greyish, with white powdery warts. Shields spherical, closed; at length bursting, with a thin ragged border, and blackish disk.

SYN. Variolaria globulifera. *Turn. Tr. of L. Soc. v. 9. 139. t. 10. f. 2.*

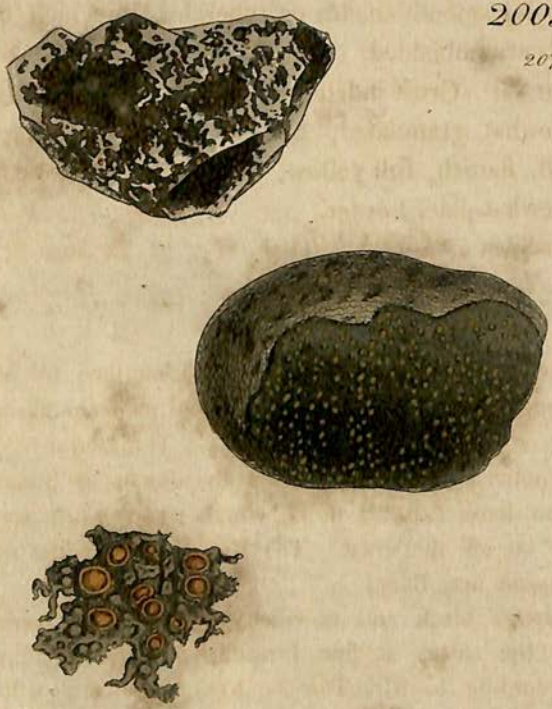
DISCOVERED on the trunks of beeches and oaks in Sussex, but rarely, by Mr. W. Borrer, by whom we were favoured with specimens in 1802; but we would not anticipate our friend Mr. Turner, who had undertaken to describe this with other new British Lichens, in a paper for the Linnæan Society, now published in the 9th volume of its Transactions.

This species is nearly akin to *L. fagineus*, *t.* 1713, and *discoideus*, *t.* 1714, with both which its crust agrees in appearance, but with the latter only in insipidity, wanting the bitter flavour of *fagineus* first remarked by Mr. Borrer. Besides numerous white powdery prominences, the crust bears here and there a few globular vesicles, depressed at the top, of the size of small peas, or vetch seeds, rather paler than the crust, whose upper part at length bursts, and the thin torn cover becomes an upright circular margin to the real disk of the shield, then disclosed, which is flat, greenish-black, occupying the bottom of the vesicle, and contains seeds lodged in parallel vertical cells like those of other Lichens.

We readily assent to Mr. Borrer's idea, that the powdery tubercles of *L. fagineus*, &c. are probably assemblages of *gemmæ* rather than of true seeds, being analogous to viviparous flowers; see *t.* 669 and 1355.

2009

2074



Lecidea atro-flava?

April 1 1809 Published by Jas Sowerby London

LICHEN atro-flavus.

Black and yellow Stone Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust indeterminate, membranous, thin, somewhat granulated, black. Shields numerous, small, flattish, full-yellow, with an entire, elevated, somewhat paler border.

SYN. Lecidea atro-flava. *Turn. Tr. of L. Soc. v. 9. 142. t. 11. f. 2.*

THIS elegant little Lichen remained undescribed till Mr. Turner made it known in one of his excellent papers published in the 9th vol. of the Linnæan Society's Transactions. It was first noticed by Mr. Borrer on the downs of Sussex, growing on loose exposed flints, which when white serve greatly to set off the crust. The Rev. G. R. Leathes observed the same near Bury.

Crust always black and unpolished, very thin, adhering closely to the stone, at first forming roundish blotches, which, according to Mr. Turner, have sometimes a fine fibrous edge, but usually splitting into scattered indeterminate fragments, and becoming granulated by age. The shields are numerous, small, of a full yellow or orange hue, flat, somewhat concave when young; their border thick, elevated, smooth, entire, rather paler than the disk. These shields are so conspicuous that we believe the plant would not have been so long undescribed, had the crust been thought to belong to them.

2010

2101.

Lecanora carneo-lutea.

April 1 1809 Published by Jas Sowerby London

LICHEN carneo-luteus.

Pale Crack-shielded Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust membranous, extremely thin, indeterminate, white, smooth. Shields depressed, minute, flattish, flesh-coloured; when young covered by their white margin, which cracks in the centre.

SYN. Parmelia carneo-lutea. *Turn. Tr. of L. Soc. v. 9. 145. t. 12. f. 2.*

COMMUNICATED by Mr. Borrer from the trunks of elms in Sussex and the Isle of Wight. The crust forms white smooth indeterminate patches, and cannot be separated from the bark. The shields are numerous, minute, sunk or depressed, remarkable for being each covered and concealed when young by its own white border, which afterwards cracks in the centre, in an irregular somewhat star-like manner, and finally becomes almost obliterated. The disk when fully formed is flattish or slightly convex, of a pale yellowish flesh-colour, usually surrounded by some uneven remains of the border.

2011

2082.

Lecanora squamulosa.

May 1, 1809, Published by J. Sowerby, London.

LICHEN squamulosus.

Scaly-crusted Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust imbricated, cracked, smooth, brownish ash-colour; its fragments angular and somewhat lobed. Shields sunk; at length elevated, flattish, of a brownish shining black, with a border like the crust.

SYN. Lichen squamulosus. *Ach. Prod.* 230. *Schrad. Journ. for* 1801. 75.
L. piceus. *Dicks. Crypt. fasc.* 4. 22. *t.* 12. *f.* 5.
Parmelia squamulosa. *Ach. Meth.* 181. *Winch Guide, v.* 2. 53.
Lecidea? picea. *Ach. Meth.* 51.

COMMUNICATED from the county of Durham by the Rev. Mr. Harriman to Mr. Borrer, and observed also by the gentleman last named and Mr. Hooker about Loch Carron, and other parts of the highlands of Scotland. Mr. Dickson indeed first found this Lichen in Scotland, and determined its distinctive characters with his usual penetration, though foreign writers have not ascertained his synonym.

The crust spreads closely over rocks and stones, and is calcareous and white within, though externally of a tolerably uniform brownish or smoky ash-colour. Its surface consists of prominent lobed imbricated fragments, approaching to the appearance of a minutely imbricated Lichen, without any precise border, and often cracks into separate dispersed fragments. Shields numerous, small; when young sunk and concave; afterwards raised, with a flat or uneven disk, of a polished pitchy black, here and there brownish and semipellucid, and with a wavy border of the colour and substance of the crust.

2012
1957

1

2

Endocarpon 1 *leptophyllum* 2

May 1.1809 Published by J. Sowerby London.

LICHEN leptophyllus.

Small-leaved Dot Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Frond leafy, small, somewhat cartilaginous, peltate, blackish brown, smooth on both sides, often black beneath; the circumference rounded, lobed and wavy. Tubercles in minute immersed dots.

SYN. Lichen leptophyllus. *Ach. Prod.* 141.
Endocarpon leptophyllum. *Ach. Meth.* 127.

GATHERED by Mr. Hooker and Mr. Borrer on the hill of Kinnoul near Perth, a famous spot for beautiful agate pebbles. The smaller and blacker specimens, *f.* 2, grew on rocks by the shore of Loch Lomond.

This little plant is much allied to *L. miniatus*, *t.* 593, both belonging to the very natural genus *Endocarpon*, which will be adopted when we undertake the arrangement of the whole tribe. It grows in patches, each plant is peltated or umbilicated, fixed by a strong central root, and from a quarter to half an inch broad, leathery or somewhat cartilaginous, smooth on both sides, rounded and bluntly lobed, when young and healthy of a blackish or greenish brown all over, the under side being, as Mr. Borrer remarks, black only when exposed to light. By great exposure the whole turns black. The tubercles are minute, concave, scattered about the centre of the upper side, in which they are so completely immersed as to have scarcely any projecting border round the orifices of each.

2013
1961.

Endocarpon tephroides.

May 1 1809 Published by J.ᵗ Sowerby London.

LICHEN tephroides.

Ash-coloured Dot Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Frond crustaceous, depressed, glaucous-ashcoloured, smooth; the circumference wavy and somewhat lobed. Tubercles in immersed coal-black dots, with prominent margins.

SYN. Lichen tephroides. *Ach. Prod.* 18.
Endocarpon tephroides. *Ach. Meth.* 129.

ONE of the new acquisitions of our friends Messrs Borrer and Hooker in their Scottish tour of last summer. It was found on the ground at Burgh Head, in the island of Stronsa, one of the Orkneys.

The fronds grow many together on the black turfy soil to which they are closely attached, assuming a tessellated appearance. Each is a quarter of an inch, or more, in breadth, of a glaucous pale ashcolour throughout; the margin wavy, rounded or lobed; the surface smooth and even, besprinkled with numerous very black dots, each of which lodges a minute black immersed concave tubercle, as in other species of *Endocarpon*.

The learned Professor Acharius originally made this one of his *Verrucariæ*, and it confirms an idea we have long had, that *Verrucaria* and *Endocarpon* are by their fructification one genus; nor is the habit of their most extreme species so different as that of the various Acharian *Parmeliæ*.

2014.
873.

Linaria minor.

May 1 1809 Published by J.t Sowerby London.

ANTIRRHINUM minus.
Least Snapdragon.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 5 segments. *Cor.* with a prominence at its base, pointing downwards and bearing honey. *Caps.* 2-celled.

SPEC. CHAR. Leaves lanceolate, obtuse, downy, mostly alternate. Stem much branched, spreading. Calyx longer than the spur.

SYN. Antirrhinum minus. *Linn. Sp. Pl. 852. Sm. Fl. Brit. 660. Huds. 272. With. 551. Hull. 139. ed. 2. 182. Relh. 245. Sibth. 195. Abbot. 137. Curt. Lond. fasc. 5. t. 41. Dicks. H. Sicc. fasc. 6. 17.*
Linaria Antirrhinum dicta. *Raii Syn. *283.*

THIS, the only known British *Antirrhinum* which we have not yet presented to our readers, is an annual native of sandy cultivated fields, flowering from June to September. The Rev. Mr. Leathes has sent it from Bury, Mr. Wigg from Yarmouth, and we have gathered it about Battersea, where Mr. Curtis likewise observed it to grow.

Root small, zigzag. Stem upright, more or less branched, various in height and luxuriance, round, downy, leafy. Leaves linear-lanceolate, entire, obtuse, downy and clammy; the lowermost often opposite, and broadest. Flowerstalks numerous, axillary, solitary, simple, about the length of the leaves. Flowers small and inconspicuous, though of no inelegant appearance when magnified, being purplish, with a white three-cleft under lip, and yellow palate. The spur is much shorter than the other part of the corolla. Segments of the calyx unequal, spatulate, covered, like the stalks and leaves, with prominent viscid hairs. Capsule ovate, obtuse, compressed, 2-lobed, opening at length by a jagged orifice as in others of this genus. Seed curiously furrowed, that part affording exquisite specific characters, if wanted, among the annual kinds of *Antirrhinum*.

1664.

Didymodon nervosus.

May 1 1819 Published by J. Sowerby London

GRIMMIA atro-virens.

Dark-green Grimmia.

CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* simple, of 16 teeth, broadest at their base. *Flowers* terminal. *Veil* cylindrical.

SPEC. CHAR. Stem subdivided. Leaves ovate, keeled, slightly bearded. Capsule elliptical, upright. Lid conical, nearly half as long as the capsule.

SYN. Grimmia atro-virens. *Turn. Bot. Guide* 620.
G. Starkeana. *Turn. Musc. Hib.* 26.

WE have Mr. Turner's authority for the above synonyms, though his Dublin specimens before us have taller and more decidedly branched stems, with a blacker hue in the whole plant, circumstances probably enough owing to their more advanced state of growth, or moister situation.

The present were sent by the Rev. H. Davies from North Wales, and grew on the ground in broad patches. The stems are short, simple or branched. Leaves crowded, spreading, dark-green, ovate or rather often obovate, entire, strongly keeled, with a thick mid-rib, which ends in a short point or beard. When dried they twist spirally together at the summit of the stem. Fruit-stalk solitary, scarcely half an inch long, pale yellowish, brown at the top. Capsule upright, of a neat, broadish, exactly oval figure, chesnut-coloured, smooth and shining. Fringe red, erect, like that of a *Trichostomum* in appearance, but not in number. Lid conical, obliquely pointed, nearly half as long as the capsule. A slight comparison will show the difference between this species and *G. Starkeana, t.* 1490.

2016
1587.

Hypnum
Silesianum.

May 1.1809 Published by J. Sowerby, London.

HYPNUM silesianum.

Silesian Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping, pinnated. Leaves loosely spreading, ovate, serrated, pointed, flattish, with two plaits at the base; the upper ones curved. Capsule cylindrical, inclining. Lid conical, short.

SYN. Hypnum silesianum. *Web. and Mohr Fl. Germ.* 343.

Leskia Seligeri. *Bridel. Musc. v. 2. p. 2.* 47.

THIS moss, new to our British Flora, and undescribed by all authors but those we have cited, was gathered on Ben Loyal in Sutherland by our often-mentioned friends Messrs. Hooker and Borrer in the summer of 1808. The fruit was then fully ripe and had dropped its lid.

It is a small creeping tufted branched species, which we have hesitated whether to refer to the neighbourhood of *cupressiforme, t.* 1860; but perhaps it will range best in the 5th section of the genus, "*capsules inclining; shoots round, the leaves imbricated every way,*" such being the disposition of its leaves, except towards the end of each branch, where they curve downwards. Their form is nearly ovate, with a long sharp point, flattish, serrated, without rib or nerve, but when dry two plaits are observable at the base. Sheaths at the base of the branches, solitary. Fruitstalk about an inch long, of a light reddish brown. Capsule inclining, not pendulous, ovato-cylindrical, a little curved, light brown, contracted and longitudinally but irregularly rugose, with a wide mouth, when dry. Fringe greenish-yellow. Mr. Hooker confirms the observations of Weber and Mohr, that it is the fringe of a *Hypnum*, not a *Leskea*.

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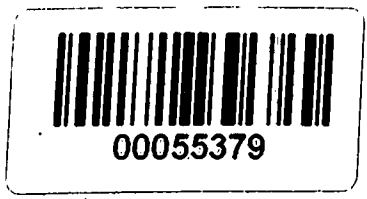
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